

## THE CONSERVATION OF ARTIFACTS FROM THE BANNEKER SITE (18BA 282)

As part of the archaeological investigation undertaken by the Maryland Historical Trust, conservation treatments were performed in order to stabilize as many artifacts from the Banneker site as possible. This work was carried out in approximately twelve working days, a length of time which is very short for many preservation treatments. Nevertheless, by performing treatments on different classes of artifacts simultaneously and en masse, conservation was streamlined so that approximately 91 artifacts were processed within the time available. The classes of materials treated included copper and lead alloys and iron. A work schedule is provided at the end of this report.

### SETTING PRIORITIES

From the beginning it was realized that not all the artifacts selected for conservation could be treated within the short time frame. The 113 bags of small finds received by the conservator had been numbered sequentially by the investigating archaeologist, Kristen Peters, in order of her priorities for interpreting the site. The more important artifacts (principally copper, lead, and coins) were treated first. Unidentifiable clumps of highly mineralized iron were considered beyond retrieval and were given the lowest priority for conservation, except when the interpretive priority was high. Easily recognizable artifacts like nails also were often rejected for treatment. In the end, all the non-ferrous artifacts were treated, and about one half the iron; most of the iron which remained untreated had priority numbers set by Peters lower than 75.

Once these conservation priorities were set, the artifacts selected for conservation were then divided into 11 groups by class of similar material (copper, lead, iron). Organizing the artifacts in these clusters facilitated mass treatments. Each group was comprised of about 8 numbered bags, because this number was considered the maximum number of finds that could be processed together simultaneously without losing proveniences. Each group was photographed. Two contact sheets accompany this report.

As the finds were examined, cleaned, and stabilized, a conservation record was filled out for each artifact. Quick diagrams were made, and the material of composition (brass, wrought iron, Britannia metal) was identified. However, because of time, no real spot tests could be performed on metals. Unusual details, associated fibrous remains, plating, fabrication and wear marks, inscriptions, etc. were recorded on these records. Each treatment was noted in detail. Recommendations for curation and storage were provided in many cases. These individual conservation records also accompany this report and should be curated

with the collection, maps, field notes, and photographs. Summaries of the treatments are provided below.

### COPPER ALLOYS

Brass and bronze were cleaned mechanically using scalpels, glass fiber brushes, and engraving pens. Formic acid (10-20%) was also used to dissolve carbonate corrosion products. No artifacts were treated by electrochemical or electrolytic reduction.

The artifacts then were treated overnight in a vacuum chamber with a chemical inhibitor called benzotriazole (BTA), using a 3% solution in ethanol. The benzotriazole associates chemically and physically with the copper to prevent outbreaks of "bronze disease", a light green, powdery, and aggressive corrosion product. After the vacuum treatment, the artifacts were passed through ethanol, allowed to dry, and coated by brush with a protective lacquer, a 5% solution of Acryloid B-72 (Rohm and Haas acrylic co-polymer) in toluene, with 1% BTA added for extra protection.

### LEAD ALLOYS

Lead, its alloy pewter, Britannia metal, and some unidentified "white" metals were cleaned mechanically with a glass brush and scalpel. A 5% solution of EDTA (disodium salt of ethylene diamine tetra acetic acid, a chelating agent) was used to dissolve the lead carbonate encrustation, although care had to be exercised to prevent the lead itself from being etched by the chemical. After exposure to the EDTA, the lead artifacts were then rinsed twice in deionized water, dewatered in ethanol, and waxed with a protective microcrystalline wax paste (Bareco B-Square or Renaissance wax) in petroleum spirits.

### IRON

Most of the small iron artifacts were too mineralized to be cleaned by electrolytic reduction. Almost all the iron was cleaned instead mechanically by scalpel, mini chisel, and/or engraving pen to remove encrustation. Many artifacts were then boiled for an afternoon in 10% EDTA to dissolve more rust. The iron was then intensively washed in many changes of deionized water in order to remove the EDTA, electrolyte, and as many contaminating chlorides as possible. The boiling took at least two days for fragile iron; more robust artifacts were boiled for 9 days or more until a silver nitrate test for chloride was negative and the readings of dissolved solids in the wash water were constant and low.

The iron was then dewatered overnight in acetone and immersed in hot microcrystalline wax (Bareco B Square) to seal the surface. Excess wax was removed by blotting the surface with paper

towels.

#### FINAL RECOMMENDATIONS

It is recommended that all metals (and especially the iron) be stored in a relative humidity of less than 30% as a measure to prevent renewed corrosion. Thus, the iron, which is very sensitive to damp conditions even after treatment, was packed in a polyethylene container with silica gel and a card indicating relative humidity. The gel should be regenerated when the Rh level rises above 30%. Lead alloys should be stored away from acid-emitting materials like paper bags and tags.

### WORK SCHEDULE

Feb 3	3 hrs.	photography
Feb 6	6 hrs.	cleaning groups 1 and 2, BTA
Feb 8	1 hr.	lacquer groups 1 and 2
Feb 11	3 hrs.	cleaning, waxing group 3
Feb 12	4 hrs.	mechanical cleaning group 5
Mar 17	3 hrs.	photography
Mar 19	6 hrs.	mechanical cleaning groups 6 and 7
Mar 20	2 hrs.	hot wash group 6
Mar 21	2 hrs.	hot wash group 6
Mar 22	2 hrs.	hot wash group 6
Mar 31	1 hr.	group 5 into BTA
Apr 10	2 hrs.	hot wash and dewater group 6
Apr 14	1 hr.	lacquer group 5
May 7	4 hrs.	wax group 6; clean group 4
May 15	2 hrs.	hot wash group 4
May 16	2 hrs.	hot wash group 4
May 19	5 hrs.	hot wash group 4; BTA group 7; mechanical cleaning group 8
May 20	8 hrs.	lacquer group 7; hot wash group 4; cleaning, waxing group 8; mechanical cleaning group 11
May 27	4 hrs.	hot wash groups 4 and 11; mechanical cleaning group 9
May 28	2 hrs.	hot wash groups 4 and 11
May 29	3 hrs.	hot wash groups 4 and 11; BTA group 9
Jun 3	3 hrs.	hot wash groups 4 and 11; lacquer group 9
Jun 4	2 hrs.	hot wash groups 4 and 11
Jun 9	6 hrs.	hot wash groups 4 and 11; clean and BTA group 10 and coins
Jun 10	3 hrs.	hot wash groups 4 and 11; lacquer group 10 and coins
Jun 11	2 hrs.	hot wash group 11; wax group 4
Jun 13	2 hrs.	hot wash group 11
Jun 17	2 hrs.	hot wash group 11; write report
Jun 18	2 hrs.	hot wash and dewater group 11
Jun 19	1 hr.	wax group 11
Jun 20	4 hrs.	prepare final report; pack finds

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93 hrs.

## CONSERVATION RECORD

Site 18BA282  
 Provenience N 185/W 455  
 Artifact No. BB  
 Provenience F5 833

Date Started JUNE 9, 1986  
 Date Finished JUNE 11, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION Spoonish  
Silver coin, 1779  
 DIMENSIONS 2.1 cm (dia)  
 CONDITION (E) G P  
 TREATMENT PRIORITY (H) M L none



OBV.

REV.

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input checked="" type="checkbox"/> silver   | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

June 9 Cleaned mechanically with scalpel + glass brush. 15% formic acid applied by swabs. Brushed again to compact + enhance surface.

June 10 Placed for 24 hrs. in 3% BTA (benzotriazole) in ethanol under vacuum.

June 11 Removed from vacuum, passed through ethanol, + air dried. Lacquered with 5% Acryloid B72 in toluene (Rohm + Haas acrylic copolymer with 10% BTA added as an inhib. hr)

- scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrasive  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dehydrated  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

Date

Before/After

PHOTOGRAPHS Roll 1 2-8-86      FRAMES 18-20 BEFORE

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site 18BA 282  
 Provenience N 250° W 435  
 Artifact No. BB  
 Provenience FS 828

Date Started JUNE 9, 1986  
 Date Finished JUNE 11, 1986  
 Conservator SINGEY

## EXAMINATION

DESCRIPTION US 1851 pennyDIMENSIONS 3.6 cmCONDITION ETREATMENT PRIORITY (H) M L none

OBV.



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

June 9 Cleaned mechanically with scalpel, glass brush, and vibrotool. Rinsed in ethanol.

June 10 Placed in 3% benzotriazole (BTA) in ethanol under vacuum ( $23 \text{ lbs/in}^2$ ) for 24 hrs.

June 11 Removed from vacuum, passed through ethanol, + air dried. Lacquered with 5% Acryloid B72 (Acrylic copolymer made by Rohm + Haas) in toluene with 1% BTA added as a corrosion inhibitor.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS Roll 1 2-3-86 Frames 18-20 BEFORE

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

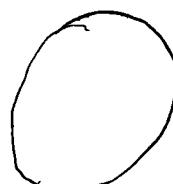
Site 18BA282  
 Provenience N280/W460  
 Artifact No. 00  
 Provenience FS 778

Date Started June 9, 1986  
 Date Finished June 11, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION 1798 copper coin

## DIMENSIONS

CONDITION E G PTREATMENT PRIORITY H M L none

OBV

REV

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests:

reverse undercut -- may be Rose pattern?

magnet:

not Britannia

other:

surface v. eroded

## TREATMENT RECORD

## Date

June 9 mechanically cleaned w/ scalpel + glass brush

June 10 placed in 3% benzotriazole (BTA) in ethanol  
for 24 hr under vacuum (23 lbs/in<sup>2</sup>)June 11 Removed, passed through ethanol, + air dried.  
Lacquered with 5% Acryloid BTZ in toluene  
(Rohm + Haas acrylic copolymer with 1% BTA  
added as an inhibitor)

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

## PHOTOGRAPHS

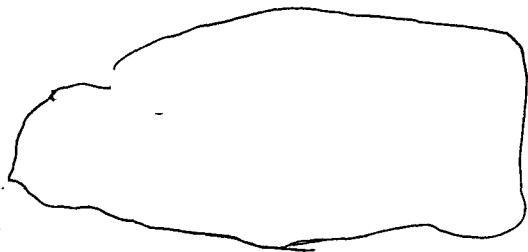
ROLL 1 2-3-86 FRAMES 18-20 BEFORE

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18CA282 Date Started JUNE 17, 1986  
 Provenience Fee 10, NE quad. layer b Date Finished JUNE 19, 1986  
 Artifact No. 1 Conservator SINGLEY  
 Provenience FS 958

EXAMINATION DESCRIPTION iron hoe fragment?  
 DIMENSIONS 20 x 9 cm  
 CONDITION E  G P  
 TREATMENT PRIORITY  H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

TECHNICAL microscopic examination:  
 ANALYSIS spot tests:  
 magnet:  
 other:

### TREATMENT RECORD

#### Date

JUNE 17, 1986 ENCRUSTATION REMOVED + HAD BEEN BACKED ON POLYESTER NET IN FIELD w/ PVA EMULSION. EXAMINATION + PROBING SHOWED THAT CORE OF PLATE WAS SOUND, ALTHOUGH EXFOLIATED THIN LAYERS WERE FRACTURED. IT WAS DECIDED TO REMOVE THE NET, THE PVA, + THE "SKIN" OF CORROSION, LEAVING THE CORE. THEREFORE, THICKNESS OF PLATE WAS REALLY TWICE OF WHAT IS NOW PRESERVED. ONCE THE PLATE WAS MECHANICALLY CLEANED, HOT WASH WAS STARTED IN CHANGES OF DIIONIZED WATER TO REMOVE AS MANY CHLORIDES AS POSSIBLE.

JUNE 18, 1986 TDS READING OF PREVIOUS DAY'S WASH WATER WAS 6.4 ppm. WATER CHANGED + HOT WASH CONTINUED. AT END OF DAY, TDS READING WAS 1.7 ppm + CHLORIDE TEST WAS NEGATIVE. BECAUSE THERE WAS NO MORE TIME IN THE SCHEDULE FOR CONTINUED HOT WASHING, THIS STAGE WAS CONSIDERED THE ENDPOINT + THE PLATE WAS PLACED IN ACETONE TO DOWATER OVERNIGHT.

JUNE 19, 1986 REMOVED FROM ACETONE, CRC 3-36 (~~INHIBITOR~~) APPLIED BY BRUSH. AFTER AIR DRYING, PLATE IMMERSSED IN HOT MICROCRYSTALLINE WAX TO SEAL.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

PHOTOGRAPHS ROLL 2, FRAMES 11-14 BEFORE 3/17

CURATORIAL  
RECOMMENDATIONS

STORE IN RH < 30%

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 188A 282 B0880  
 Artifact No. 103  
 Provenience \_\_\_\_\_

Date Started 2/12-86  
 Date Finished 4-13-86  
 Conservator SINGLEY

EXAMINATION      DESCRIPTION copper coin - English?  
 REV.      GBV.      DIMENSIONS 2.6cm  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none



←Slight  
impression  
on obverse  
head faces  
right.

relics of inscription.  
Stamped surface gone?

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

Seated  
Britannia? TECHNICAL  
ANALYSIS

microscopic examination:  
 spot tests: compact surface, No inscription  
 magnet: slight impressions on obverse  
 other:

## TREATMENT RECORD

Date

2-12 Mechanically cleaned w/ glass brush & scalpel  
 Placed in 15% formic acid 2 min. Brushed excess-  
 ively to bring out vestiges of decoration.

3-31 Placed in 3% benzotriazole in methanol under vacuum.  
 Vacuum pulled to 23" Hg.

4-13 Vacuum released. Removed, passed through  
 methanol, + air dried. Lacquered with lacalac  
 (acrylic lacquer w/ benzotriazole) in toluene.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 15-17

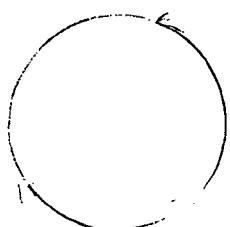
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience ~~USA 703~~ 00888  
 Artifact No. ~~4~~  
 Provenience \_\_\_\_\_

Date Started 2/8/86  
 Date Finished 2-8-86  
 Conservator Sinley

## EXAMINATION

DESCRIPTION COINDIMENSIONS 2.8 CMCONDITION E G PTREATMENT PRIORITY (H) M L none

<input type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests:

no remnants of unscriptum

magnet:

Solid desc.

other:

## TREATMENT RECORD

## Date

2-8 Cleaned mechanically w/ scalpel + glass brush  
 15% formic acid applied on swab. Rinsed w/  
 methanol + then treated under vacuum w/ 3%  
 benzotriazole in methanol, 25" Hg.

2-8 removed from vacuum, passed through methanol,  
 + lacquered with Inralac in toluene, an acrylic  
 lacquer with benzotriazole added as an  
 inhibitor.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

2-3-86

## Before/After

BEFORE, ROLL 1, FRAMES 0-3

## PHOTOGRAPHS

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site ISBA 262 BB 268  
 Provenience \_\_\_\_\_  
 Artifact No. 6  
 Provenience \_\_\_\_\_

Date Started MAY 31, 1986  
 Date Finished June 19, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION Knife blade fragment w/ tang  
 DIMENSIONS 11.5 x 2.3 cm  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none



- |       |  |                                     |                                    |
|-------|--|-------------------------------------|------------------------------------|
| rivet | <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
|       | <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
|       | <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
|       | <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
|       | <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
|       | <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
|       | <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet: strong  
 other:

## TREATMENT RECORD

## Date

- 5-21 Mechanically cleaned with scalpel & vibrotool.  
 Tip fractured in cleaning; repaired w/ Duxo cement.
- 5-24 Boiled in 10% EDTA for 4 hrs; left overnight in EDTA
- 5-28 Boiling begun in changes hot deionized water,  
 changed 6x/day, to remove CI & EDTA
- 5-29 HOT WASH CONTINUED
- 6-3 TDS READING ON PREVIOUS DAY'S WATER C 11 ppm CHANGED  
 & HOT WASH CONT'D.
- 6-4 TDS READING AT 5.6. WATER CHANGED & HOT WASH CONT'D.
- 6-9 TDS READING AT 5.6. WATER CHANGED & HOT WASH  
 CONTINUED.
- 6-10 TDS READING AT 3.6 ppm. WATER CHANGED; HOT WASH CONT'D.
- 6-11 TDS READING AT 1.6 ppm. WATER CHANGED; HOT WASH CONT'D.
- 6-13 TDS READING AT 2.3 ppm.
- 6-17 NO READING. HOT WASH CONT'D.
- 6-18 TDS READING AT 2.8 ppm. WATER CHANGED, HOT  
 WASH CONT'D. LAST WASH WATER 1.1 ppm w/ NEG.  
 CHLORIDE TDS F. REMOVED & DOWNTURNED IN ACETONE
- 6-19 WAXED IN HOT MICROCRYSTALLINE WAX TO SEAL.

- SUMMARY
- scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrush  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dehydrated  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

Date

Before/After

## PHOTOGRAPHS

3-17 Roll 2, Frames 19-20 BEFORE

CURATORIAL  
RECOMMENDATIONS

STORE IN RH &lt; 30%.

## CONSERVATION RECORD

Site 198A222 B6780  
 Provenience \_\_\_\_\_  
 Artifact No. 7  
 Provenience \_\_\_\_\_

Date Started May 7, 1986  
 Date Finished June 13, 1986  
 Conservator Singley

## EXAMINATION

DESCRIPTION 2 knife parts - tang + bladeDIMENSIONS 3/8", 2" long

CONDITION E G P

TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests:

magnet:

other:

cannot be joined - edge too corroded

## TREATMENT RECORD

## Date

5-7 Mechanically cleaned with mini-chisel, scalpel, vibrotool.  
 5-15 placed in 10% EDTA (disodium salt) + boiled for 4 hrs.  
 Left overnight in EDTA to cool.

5-16 Intensive washing started in changes of cleaned water 6x/day  
 5-19 Hot wash continued  
 5-24 Hot wash continued.

5-28 TDS reading of cold wash water @ 11 ppm. Changed to hot wash continued.

5-29 TDS reading of cold water at 6.2 ppm. Hot wash cont.

6-3 TDS reading of cold water @ 4.8 ppm. Hot wash cont.

6-4 TDS reading of cold water @ 8 ppm. Hot wash cont.

6-9 TDS reading of cold water @ 10.1 ppm. Hot wash cont.  
 ClO test at day's end is negative.

6-10 TDS reading of cold water @ 1.7 ppm. Hot wash cont.  
 ClO test again negative at end of day. Put into acetone to dehydrate.

6-13 Removed from acetone & placed into hot microcryptoblock

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS BEFORE, ROW 1, FRAMES 12-14

## CURATORIAL RECOMMENDATIONS

STORE IN RH &lt; 30 %

## CONSERVATION RECORD

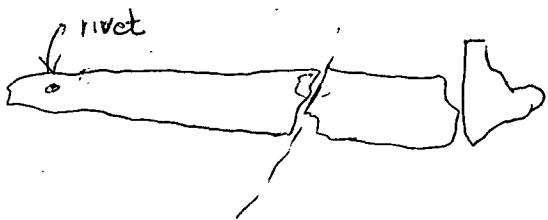
Site i8 BA 282 BB 911  
 Provenience \_\_\_\_\_  
 Artifact No. 5  
 Provenience \_\_\_\_\_

Date Started MAY 7, 1986  
 Date Finished JUN 13, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION IRON pieces - 2 - razor blade? + assoc bag.

## DIMENSIONS

CONDITION E G PTREATMENT PRIORITY (H) M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

## microscopic examination:

## spot tests:

magnet: poor pull

other:

## TREATMENT RECORD

## Date

- 5-7 Mechanically cleaned w/ mini chisel, scalpel, vibrotool  
 5-15 placed in 10% EDTA (disodium salt) + boiled for 4 hours. Left overnight in EDTA to cool.  
 5-16 Hot wash started in changes of deionized water  
 changed 6x/day.  
 5-19 Hot wash continued.  
 5-21 Hot wash continued.  
 5-28 TDS meter on cold wash water @ 11 ppm. Hot wash continued.  
 5-29 TDS meter reading 6.2 ppm. Hot wash continued.  
 6-3 TDS meter reading 4.8 ppm. Hot wash continued  
 6-4 TDS meter reading 3 ppm. HOT WASH cont.  
 6-9 TDS meter reading 10.1 ppm. HOT WASH cont.  
 6-10 TDS meter reading 1.7 ppm. HOT WASH cont.  
 ClO test negative. At end of day, placed into acetone  
 to dewater.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool, chisel
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

PHOTOGRAPHS BEFORE FEB 2nd ROLL 1, FRAMES 12-14

CURATORIAL  
RECOMMENDATIONS

Store at RH &lt; 30%

6-13 Removed from acetone + placed into hot microcrystalline  
wax to seal.

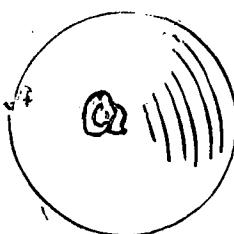
6-17 GLUED w/ HAROMAN CRYSTAL CLEAR EPOXY

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA282 - D8830  
 Artifact No. 3  
 Provenience \_\_\_\_\_

Date Started 2-8-86  
 Date Finished 2-8-86  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION 2 buttons - large + small

DIMENSIONS 2.8 cm

CONDITION E G P

TREATMENT PRIORITY H M L none

-concentric circles



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests: large button vs plated w/ a white metal

magnet: copper base

other:

## TREATMENT RECORD

## Date

2-8 Large button cleaned w/ glass brush. Loop broke w/ handling. Placed in 3% benzotriazole in methanol under vacuum, 25" Hg

2-8 Removed from BTA. Paired through methanol, dried, & lacquered w/ incralac acrylic lacquer in methanol, which contains the inhibitor Benzotriazole.

2-9 Loop reattached on larger button with Deco cement.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 0-2

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 1200282  
 Provenience   
 Artifact No. B8979  
 Provenience 9

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLET

## EXAMINATION

DESCRIPTION small plated button  
 DIMENSIONS 1.3cm (diam)  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none



solder

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter (?) | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      |                                    |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests: copper alloy plated w/ white metal  
 magnet: "PLATED" INSCRIBED ON REVERSE  
 other: - no remnants fiber on bottom

## TREATMENT RECORD

## Date

5-27 mechanically cleaned w/ scalpel + glass brush  
 5-29 PLACED UNDERR VACUUM (231001.12) IN 3% Benzo-triazole (BTA) IN ETHANOL.

6-3 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL, +  
 AIR DRIED. LACQUERED WITH 5% ACRYLONIC B-72  
 (Rotham + Haas ACRYLIC Co-Polymer) IN TOLUENE, WITH  
 10% BTA ADDED AS AN INHIBITOR.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasice
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date 7-17 Roll 2 FRAMES 15+16

## Before/After

BEFORE

CURATORIAL  
RECOMMENDATIONS

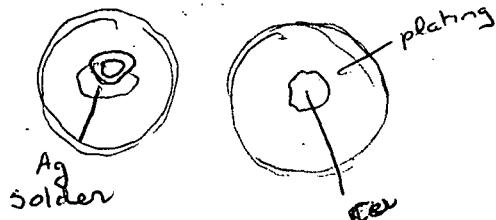
## CONSERVATION RECORD

Site 1880.282  
 Provenience B0874  
 Artifact No.  
 Provenience ( ) 10?

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator Singlet

## EXAMINATION

DESCRIPTION plated button  
 DIMENSIONS 2.1 cm (diam)  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter(?)  | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input checked="" type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests:

copper alloy plated w/ white metal

magnet:

metal appears to be silver

other:

no remains to fiber areas, w/ button

## TREATMENT RECORD

## Date

- 5-27 Mechanically cleaned using scalpel + glass brush  
 10% Formic acid applied by swab. Whiting in isopropanol  
 used as an abrasive paste to polish silver.
- 5-29 PLACED IN 3% benzotriazole in ETHANOL UNDER VACUUM (23 Pb5In2)
- 6-3 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL, + AIR DRIED.  
 LACQUERED IN 5% ACRYLIC B-72 IN TOLUENE (ROHM + HAAS  
 ACRYLIC CO-POLYMER) WITH 1% BTA ADDED AS AN INHIBITOR.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airabrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date 3-17 Before/After  
ROLL 2, FRAMES 15+16 BEFORE

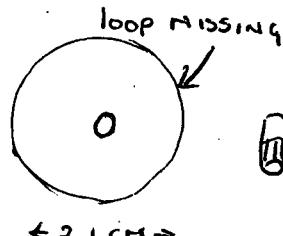
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18BA282  
 Provenience BB447  
 Artifact No. 11  
 Provenience

Date Started JUNE 9, 1986  
 Date Finished June 11, 1986  
 Conservator SINGLEY

## EXAMINATION



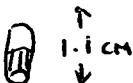
May be plated

DESCRIPTION button fragment + Pb bullet

## DIMENSIONS

CONDITION E (G) P

TREATMENT PRIORITY (H) M L none



1.1 cm

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

button may be plated?

solder on loop evident on rev.

## TREATMENT RECORD

## Date

June 9 Bullet cleaned by immersing in 10% EDTA (disodium) for 3 minutes. Rinsed 10 minutes in deionized water, then 10 minutes in ethanol. Coated with a slurry of Renaissance microcrystalline wax in Stoddard solvent. Button cleaned mechanically with glass brush + scalpel. Swabbed with 15% formic acid.

June 10 Button placed in 3% benzotriazole (BTA) in ethanol under vacuum (0.3 lbs/in<sup>2</sup>) for 24 hours.

June 11 Button removed, passed through ethanol, + air dried. Lacquered with 5% Acryloid B72 (Rohm + Haas acrylic copolymer) in toluene w/ 1% BTA added to inhibit corrosion.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

ROLL 2 3-17 FRAMES 17 + 18 BEFORE

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 180A 282 B9852  
 Artifact No. 12  
 Provenience \_\_\_\_\_

Date Started 8-12-86  
 Date Finished 4-13-86  
 Conservator SWAGBY

## EXAMINATION

DESCRIPTION button  
 DIMENSIONS 1.5 cm diam  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests: copper w/ white metal plating  
 magnet: brass loop has bronze discoloration  
 other:

## TREATMENT RECORD

## Date

- 2-12 Mechanically cleaned w/ scalpel + glass brush.  
 Soaked w/ 15% formic acid.
- 3-31 Placed in 3% benzotriazole in methanol under vacuum. Vacuum pulled to 23" Hg
- 4-13 Removed from chamber. Passed through methanol + air dried. Lacquered with lacquer (acrylic lacquer with added benzotriazole) in toluene.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, ROLL 1, FRAMES 15-17

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 150A-202 OB 1010  
 Artifact No. BAG 13  
 Provenience \_\_\_\_\_

Date Started 2-8-86  
 Date Finished 3-8-86  
 Conservator SINGLEY

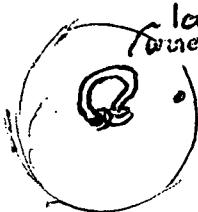
## EXAMINATION

DESCRIPTION large bottom

DIMENSIONS 2.4 cm diam.

CONDITION E  G P

TREATMENT PRIORITY  H M L none



## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet: no evidence of plating. Fault on front linked to small hole on rear?

other: Wire twisted + inserted as loop

## TREATMENT RECORD

## Date

2-6 brushed w/ glass briste brush 15% formic acid applied by swab to remove copper corrosion products. Placed in methanol, + Rem vnt 3% Benzotriazole in methanol under vacuum @ 25°C

Hg

2-8 removed from chamber. Rinsed through methanol. Lacquered w/ lacralac in toluene, an acrylic lacquer with benzotriazole as an additive.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewaterted
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROW 1, PRAM 250-3

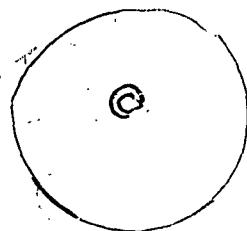
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18BA282  
 Provenience \_\_\_\_\_  
 Artifact No. BB979  
 Provenience 14

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLET

## EXAMINATION



DESCRIPTION copper alloy button

DIMENSIONS 2.9 cm (diam)

CONDITION E G P

TREATMENT PRIORITY H M L none

		CORE		
<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone/ivory	<input type="checkbox"/>
<input checked="" type="checkbox"/>	lead/tin/pewter(?)	<input type="checkbox"/>	cork	<input type="checkbox"/>
<input type="checkbox"/>	iron/steel	<input checked="" type="checkbox"/>	wood	<input type="checkbox"/>
<input type="checkbox"/>	gold	<input checked="" type="checkbox"/>	cloth	<input type="checkbox"/>
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>

## TECHNICAL ANALYSIS

microscopic examination: slightly warped  
 spot tests: concentric circles on edge on abv.  
 magnet: fibers found around loop - wool  
 other: remnants of white metal plating - now black

## TREATMENT RECORD

## Date

5-27-86 Mechanically cleaned w/ scalpel & glass brush.  
 10% formic acid applied by swab.

5-29-86 PLACED UNDER VACUUM (23 INCHES) IN 3% BTA  
 (benzotriazole) IN ETHANOL.

6-3-86 REMOVED FROM VACUUM, PASSED THROUGH  
 ETHANOL, + AIR DRIED. THEN LACQUERED WITH 5%  
 ACRYLON B-72 (ROHM + HAAS ACRYLIC COPOLYMER)  
 WITH 10% BTA ADDED AS AN INHIBITOR.

6-17-86 Fibers identified as wool under polarizing microscope.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

PHOTOGRAPHS	Date	Before/After		
		ROLL 2	3/17	FRAMES 15+16

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 19BA282-BAB68  
 Artifact No. 15  
 Provenience \_\_\_\_\_

Date Started 2/6/86  
 Date Finished 2-8-86  
 Conservator SINGLET

## EXAMINATION

DESCRIPTION small buttonDIMENSIONS 1.3 cm diam

CONDITION E G P

TREATMENT PRIORITY (H) M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests: remnants of light gilding layer is evident on

magnet: back and on edge. Button has rough, textured

other: surface for the gilding to hold?

## TREATMENT RECORD

## Date

2/6 cleaned lightly w/ fine glass brush. 15% formic acid applied by swab removed copper corrosion products + enhanced vestiges of gilding. Placed in methanol to rinse, + rinsed in 30% benzotriazole in methanol; 25" Hg into oven dried.

2-8 passed through methanol + lacquered w/ Inralac intalene, an acrylic lacquer w/ Benzotriazole as an additive.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORE, ROLL 1, FRAMES 0-3

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA 282 BB 1015  
 Artifact No. 16  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator SINGLET

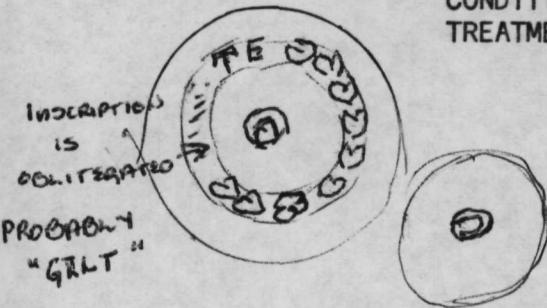
## EXAMINATION

DESCRIPTION 2 small buttons (cuff?)

## DIMENSIONS

CONDITION E G P

TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: silver gilt cuff bottom w/ inscription on reverse  
 spot tests:  
 magnet:  
 other:

plain button has hazele plating (now black) no decoloration or mordant.

## TREATMENT RECORD

Date Plain and

2-6 Silver gilded button cleaned w/ 15% formic acid to enhance silverying. Glass brush brushed.

Dewatered in methanol. Placed in 3%

Benzotriazole in methanol under vacuum, 25" Hg

2-8 removed from vacuum, passed through methanol, + then lacquered with Inralac acrylic lacquer with Benzotriazole as an added inhibitor.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18 BA 282  
 Provenience BOSTON 979  
 Artifact No. 17  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator SINGLEY

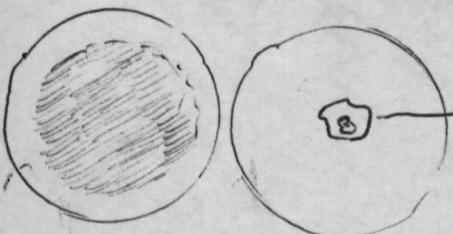
## EXAMINATION

DESCRIPTION button

DIMENSIONS 2.8 cm diam.

CONDITION E (G) P

TREATMENT PRIORITY (H) M L none



FLATTENED  
CENTER  
ON DVERSE

- |                                  |   |                                     |                                    |
|----------------------------------|---|-------------------------------------|------------------------------------|
| IRON loop (encrusted) on reverse | <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
|                                  | <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
|                                  | <input checked="" type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
|                                  | <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
|                                  | <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
|                                  | <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
|                                  | <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: very black, powdery surface under Cu corrosion  
 spot tests: remnant of plating? Sulfide? peculiar alloy?  
 magnet: IT was decided not to remove this layer  
 other:

## TREATMENT RECORD

## Date

3-19-86 Mechanically cleaned with scalpel + glass brush

5-19-86 placed in 3% Benzotriazole in ethanol under vacuum ( $22105 \text{ in}^2$ ) for 24 hrs.

5-20-86 Removed from vacuum, passed through ethanol, + air dried. Lacquered with a coat of Incalac (acrylic lacquer with benzotriazole added as inhibitor) applied by brush in 5% solution in toluene.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17

BEFORE, ROLL 2, FRAMES 4-6

CURATORIAL  
RECOMMENDATIONS

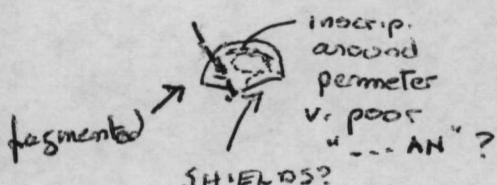
## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA 582-BB64  
 Artifact No. 18  
 Provenience \_\_\_\_\_

Date Started 2/6/86  
 Date Finished 2/9/86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION button fragment  
 DIMENSIONS 1.75 mm diam.  
 CONDITION E G  P  
 TREATMENT PRIORITY  H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests: none  
 magnet: v. mineralized - not much  
 other: mechanical strength

## TREATMENT RECORD

## Date

- 2-6 mechanically cleaned w/ glass brush + scalpel  
 inscription did not become more readable.  
 15% formic acid applied by swab. Fractured in cleaning. Fragments rinsed w/ ethanol after cleaning + then placed in 3% benzotriazole in methanol under vacuum, 25" Hg
- 2-8 removed from vacuum, passed through methanol, dried, + then lacquered with lacolac in toluene, an acrylic lacquer that contains benzotriazole
- 2-9 fragments joined with Dux cement.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date

Before/After

2/2/86

before, Roll 1, FRAMES 0-2

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience ISBA 282 - 88839  
 Artifact No. 19  
 Provenience \_\_\_\_\_

Date Started 3-6-86  
 Date Finished 3-8-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION chair tack / Peg tap  
 DIMENSIONS .45 x 1.5 cm  
 CONDITION E  G P  
 TREATMENT PRIORITY  H M L none



- worn center:  copper/brass/bronze  bone/ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  ceramic  
 gold  cloth  stone  
 silver  leather  rubber  
 mineral  rope  other  
 gem  paper ( )

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests: the brass appears to have been plated (silver  
 magnet: colored) worn center area + 2 prongs  
 other: indicate Peg cap

## TREATMENT RECORD

## Date

2-6 mechanically cleaned w/ scalpel + glass brush  
 15% formic acid used also to remove copper  
 corrosion products. Plating enhanced w/  
 cleaning. Rinsed in methanol, then  
 placed in 3% benzotriazole in methanol  
 under vacuum, 25" Hg.

2-8 Removed from vacuum, passed through methanol,  
 + then lacquered with Inralac in toluene, an  
 acrylic lacquer containing benzotriazole as an  
 additive.

- SUMMARY  
 scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrush  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 189A282  
 Provenience BB222  
 Artifact No. 20  
 Provenience \_\_\_\_\_

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLEY

EXAMINATION      DESCRIPTION small button  
 DIMENSIONS 1.3 cm  
 CONDITION E (G) P  
 TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests: no peeling  
 magnet:  
 other:

## TREATMENT RECORD

## Date

5-27 Mechanically cleaned w/ scalpel + glass brush.  
 Immersed in 10% formic acid for 15 minutes; brushed again  
 w/ gbb

5-29 PLACED IN VACUUM (231641 in<sup>-2</sup>) IN 53% BTA (BENZO-  
 TRICARBOL) IN ETHANOL.

6-3 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL,  
 + AIR DRIED. THEN LAQUERED WITH 5% ACRYLIC 0.0-B-72  
 (ROHM + HAAS ACRYLIC CO-POLYMER IN TOLUENE) THAT  
 CONTAINED 10% BTA AS AN INHIBITOR.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date 3-17 Before/After  
 Roll 2      Frames 15+16      BEFORE

CURATORIAL  
RECOMMENDATIONS

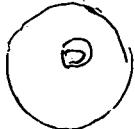
## CONSERVATION RECORD

Site 18 BA982  
 Provenience BB986  
 Artifact No.  
 Provenience 21

Date Started JUNE 9, 1986  
 Date Finished JUNE 11, 1986  
 Conservator SINGLET

## EXAMINATION

DESCRIPTION 3 buttons (2 are plated w/ white metal)  
 DIMENSIONS 1.2 - 1.5 cm  
 CONDITION E (G) P  
 TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: plating evident on 2 buttons  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

JUNE 9 Mechanically cleaned with scalped + glass brush  
 15% formic acid used to remove copper corrosion

JUNE 10 placed in 3% benzotriazole (BTA) in ethanol  
 under vacuum (0.31551.in<sup>-2</sup>) for 24 hours.

JUNE 11 Removed from vacuum, passed through ethanol,  
 and air dried. Lacquered with 5% Acryloid  
 B72 in toluene (acrylic co-polymer with 10%  
 BTA added to inhibit further corrosion)

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

PHOTOGRAPHS MARCH 17 ROLL 2 FRAMES 17+18

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18 BA 282 - B3853  
 Provenience \_\_\_\_\_  
 Artifact No. 82  
 Provenience \_\_\_\_\_

Date Started 2-12-86  
 Date Finished 2-12-86 4-13-86  
 Conservator SIMPLY

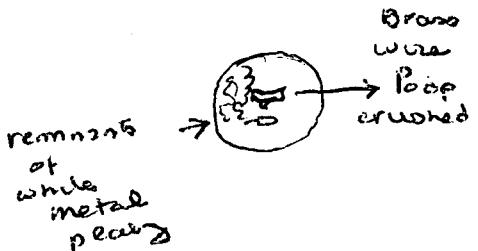
## EXAMINATION

DESCRIPTION brass bottom

DIMENSIONS 1.6 cm

CONDITION E  G P

TREATMENT PRIORITY H M L none



<input checked="" type="checkbox"/> brass	<input checked="" type="checkbox"/> copper/bronze/brass	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> wire	<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input checked="" type="checkbox"/> loop	<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input checked="" type="checkbox"/> eroded	<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
	<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
	<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
	<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

## TECHNICAL ANALYSIS

microscopic examination: Obj. surface is roughed, v. much like bottom # 18 BA 282 - B3868 (BAF # 15)  
 spot tests:  
 magnet:  
 other: No plating left, however; on front, some white metal on reverse

## TREATMENT RECORD

## Date

2-12 Cleared with 15% formic acid (3 min.) Brushed with glass bristle brush + cleared w/ scalpel.  
 Formic acid enhanced white metal plating.

3-31 Placed in 3% benzotriazole in methanol under vacuum  
 Vacuum pulled to 23" Hg

4-13 Removed from vacuum. Rinsed through methanol.  
 Air dried. Lacquered with lacquer in toluene  
 (acrylic lacquer with benzotriazole)

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, ROLL 1, FRAMES 15-17

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

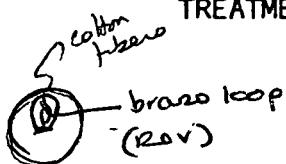
Site 150A282  
 Provenience BO978  
 Artifact No. 23  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator SINGLEY

EXAMINATION DESCRIPTION BUTTON w/ PLATING  
 DIMENSIONS 1.4 cm diam.

CONDITION (E) G P

TREATMENT PRIORITY (H) M L none



- |   |   |                                    |
|---|---|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory       | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork             | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood             | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input checked="" type="checkbox"/> cloth | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather          | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope             | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper            | ( )                                |

TECHNICAL ANALYSIS microscopic examination: Appears to be a copper alloy base  
 spot tests: w/ white metal plating  
 magnet:  
 other: Cotton fibers trapped in corrosion products in loop

## TREATMENT RECORD

## Date

3-19 mechanically cleaned w/ glass brush + scalped 10% formic acid used to enhance white metal plating. Loop not cleaned because of fibers

5-19- placed in 3% Benzotriazole in ethanol under vacuum ( $2 \times 10^{-3}$  torr) for 24 hrs.

5-20 Removed from vacuum, passed through alcohol, + air dried. Coated with a coat of Inralac (acrylic w/ benzotriazole added as inhibitor) applied by brush in a 5% solution in toluene.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date  
 3-17-86

Before/After  
 BEFORE, ROLL 2, FRAMES 4-6

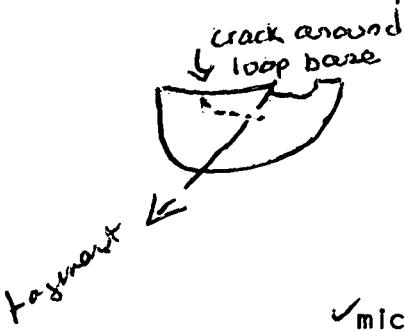
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 150A 282 DG764  
 Artifact No. 24  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-9-86  
 Conservator JINGLEY

EXAMINATION      DESCRIPTION button fragment  
 DIMENSIONS 2.7 cm  
 CONDITION E (G) P  
 TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

TECHNICAL ANALYSIS ✓ microscopic examination: Appears to be brass w/ white spot tests:  
 magnet:  
 other: metal plating, Concentric circles on reverse from spinning. Large groove around loop at back, which failed.

## TREATMENT RECORD

## Date

- 2-8 mechanically cleaned w/ scalpel + glass brush.  
 chemically cleaned w/ 15% formic acid to enhance silvering layer. Fragmented during cleaning. Placed in 3% Benzotriazole in methanol under vacuum, 25° Hg. passed through methanol & air dried, + then lacquered with Unralac in toluene, an acrylic lacquer that contains the benzotriazole inhibitor.
- 2-8 Removed from vacuum, air dried, + then lacquered with Unralac in toluene, an acrylic lacquer that contains the benzotriazole inhibitor.
- 2-9. fragments joined w/ Doco cement.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORE, Roll 1, Frame 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 185A282  
 Provenience BBB80  
 Artifact No. \_\_\_\_\_  
 Provenience 25

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION copper alloy button - cuff buttonDIMENSIONS cm: 1.3 (diam)CONDITION E (G) PTREATMENT PRIORITY. (H) M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: bronze discolor evident on both obv + rev  
 spot tests:  
 magnet: "gilt" on reverse  
 other:

## TREATMENT RECORD

## Date

- 5-27-86 Mechanically cleaned w/ scalpel + glass brush  
 10% formic acid used by immersion for 15 minutes. Brushed again with gbs.
- 5-29-86 PLACED IN 3% benzotriazole (BTA) IN ETHANOL UNDER VACUUM ( $23 \text{ lbs/in}^2$ ).
- 6-3-86 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL, AND AIR DRIED. LACQUERED WITH 5% ACRYLIC BT-2 (Rohm + Haas Acrylic Co-Polymer) IN TOLUENE, WITH 1% BTA ADDED AS AN INHIBITOR.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

PHOTOGRAPHS	Date	Before/After	
		Roll 2	3-17 FRAMES 15+16 BEFORE

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site 186A282  
 Provenience   
 Artifact No. BB973  
 Provenience ab

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLEY

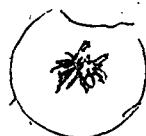
## EXAMINATION

DESCRIPTION plated button

DIMENSIONS 1.6 cm (diam)

CONDITION E G P

TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      |                                    |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests: plated. Star decoration on obverse  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 5-27 Mechanically cleaned w/ scalpel + glass brush  
 10% EDTA + formic acid used to remove copper + Fe(C<sub>2</sub>)  
 corrosion products. Button rinsed in deionized water.
- 5-29 PLACED IN 3% BENZOTRIAZOLE (BTA) IN ETHANOL UNDER VACUUM  
 (23 lbs/in<sup>2</sup>)
- 6-3 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL, + AIR DRIED.  
 LACQUERED WITH 5% ACRYLIC B-72 IN TOLUENE (ROHM + HAAS  
 ACRYLIC CO-POLYMER) WITH 1% BTA ADDED AS AN INHIBITOR.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

## Before/After

3-17 Roll 2 FRAMES 15+16 BEFORE

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 180A282  
 Provenience B50  
 Artifact No. 27  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator Dingley

## EXAMINATION

DESCRIPTION Silver plated cap?

DIMENSIONS 1.2 cm

CONDITION E G P

TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input checked="" type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: plating on obverse appears to be silver  
 spot tests: on reverse, there is a resinous material  
 magnet: (silver? packing material?)  
 other:

## TREATMENT RECORD

## Date

3-19 Mechanically cleaned w/ qbb & scalped 10%  
 formic acid used to enhance silver.

resinous material left alone

5-19 Placed in 3% Benzotriazole in ethanol under  
 vacuum (22 lbs/in<sup>2</sup>) for 24 hrs.

5-20 Removed from vacuum, passed through ethanol,  
 + air dried. Then lacquered with a coat of 5%  
 Inralac in toluene (acrylic lacquer w/ Benzo-  
 triazole added as an inhibitor) applied by  
 brush.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

3-19-86

## Before/After

BEFORE, Roll 2, Frames ~~4-6~~

4-6

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 13 BA 282  
 Provenience BB 823  
 Artifact No. 28  
 Provenience \_\_\_\_\_

Date Started JUNE 9, 1986  
 Date Finished June 11, 1986  
 Conservator S. SCHLEY

**EXAMINATION**      DESCRIPTION bronze bead?  
 DIMENSIONS .7cm diam  
 CONDITION E (G) P  
 TREATMENT PRIORITY (H) M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper      | ( )                                |

**TECHNICAL ANALYSIS**  
 microscopic examination:  
 spot tests:  
 magnet:  
 other:

**TREATMENT RECORD**Date

June 9 mechanically cleaned with scalpel + glass brush.  
 Placed in 15% formic acid + then brushed to remove  
 copper corrosion products.

June 10 placed for 24 hrs. in 3% benzotriazole (BTA)  
 in ethanol under vacuum (23 lbs/in<sup>2</sup>)

June 11 removed from vacuum, passed through  
 ethanol, + air dried. Lacquered with 5%  
 Acrylic B72 in toluene (Rohm + Haas acrylic  
 copolymer, with 1% BTA added as corrosion  
 inhibitor).

- SUMMARY**
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

DateBefore/After

**PHOTOGRAPHS** MARCH 17 Row 2 FRAMES 17+18 BEFORE

**CURATORIAL  
RECOMMENDATIONS**

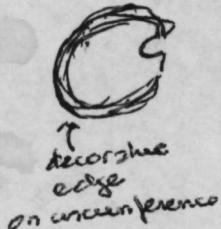
## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 180A 282 B0860  
 Artifact No. 29  
 Provenience \_\_\_\_\_

Date Started 2-12-86  
 Date Finished 2-12-86 - 4-13-86  
 Conservator SIEGEL

## EXAMINATION

DESCRIPTION furniture caps  
 DIMENSIONS 1.5 cm + 2 cm diam  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

-microscopic examination: wear on bottom areas w/ contact  
 spot tests:  
 magnet:  
 other:

no plating?

## TREATMENT RECORD

## Date

2-12 mechanically cleaned w/ scalpel & glass brush.  
 Swabbed w/ 15% formic acid.

3-31 placed in 3% benzotriazole in methanol under  
 vacuum, 23" Hg

4-13 Removed, passed through methanol, air dried.  
 Lacquered with Incolac (Acrylic lacquer in  
 toluene) with benzotriazole added)

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, ROLL 1, FRAMES 15-17

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 15BA282  
 Provenience BB 830  
 Artifact No. 20  
 Provenience \_\_\_\_\_

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION button?

DIMENSIONS 1.4 cm (diam)

CONDITION E G (P)

TREATMENT PRIORITY H (M) L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

button was a hollow dome,  
 now crushed & distorted  
 loop is missing.

## TREATMENT RECORD

## Date

5-27-86 Mechanically cleaned w/ scalpel & glass brush  
 5-29-86 PLACED IN 3% benzotriazole in ethanol under VACUUM  
 (23 lbs/in<sup>2</sup>)  
 6-3-86 REMOVED FROM VACUUM, PASSED THROUGH ETHANOL  
 + AIR DRIED. THEN LACQUERED WITH 5% ACRYLIC  
 B-72 (ROHM + HAAS ACRYLIC CO-POLYMER) IN TOLUENE  
 THAT CONTAINS 1% BTA AS AN INHIBITOR.

- SUMMARY
- |   |
|---|
| <input checked="" type="checkbox"/> scalpel     |
| <input type="checkbox"/> wire brush             |
| <input checked="" type="checkbox"/> glass brush |
| <input type="checkbox"/> vibrotool              |
| <input type="checkbox"/> airbrush               |
| <input type="checkbox"/> electrolysis           |
| <input type="checkbox"/> chemical               |
| <input type="checkbox"/> ultrasonic             |
| <input type="checkbox"/> hot wash               |
| <input type="checkbox"/> cold wash              |
| <input type="checkbox"/> dehydrated             |
| <input type="checkbox"/> oven dried             |
| <input checked="" type="checkbox"/> inhibitor   |
| <input checked="" type="checkbox"/> coating     |
| <input type="checkbox"/> reshaped               |
| <input type="checkbox"/> mended                 |
| <input type="checkbox"/> filled                 |
| <input type="checkbox"/> consolidated           |
| <input checked="" type="checkbox"/> support     |
| <input type="checkbox"/> biocide                |

Date	Before/After
3-17 ROLL 2, FRAMED 15-16	Before

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience S.BA 282 BB 764  
 Artifact No. 31  
 Provenience \_\_\_\_\_

Date Started 2/6/86  
 Date Finished 2-8-86  
 Conservator SINGLEV

## EXAMINATION

DESCRIPTION decorative button  
 DIMENSIONS 1.4 cm  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests: no evidence of plating bronze disease evident  
 magnet: in corrosion products Fiber remains in loop  
 other: corrosion products, but not retrievable.

## TREATMENT RECORD

## Date

2-6-86 mechanically cleaned w/ scalpel + fiber brush.  
 Chemically cleaned w/ 15% formic acid to  
 remove corrosion products on decorative holes.  
 Rinsed thru methanol + then placed in 3%  
 benzotriazole under vacuum, 25" Hg  
 2-8-86 removed from vacuum, passed through methanol,  
 and lacquered with unralac in toluene, an  
 acrylic lacquer with benzotriazole added as an  
 inhibitor

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, Roll 1, Frames 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA 282. B0837  
 Artifact No. 32  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator DINGLEY

## EXAMINATION



DESCRIPTION brass buckle part  
 DIMENSIONS 2.0 cm  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

—microscopic examination: brass core, but plated w/ a white metal? grey  
 spot tests:  
 magnet: bronze dross are trapped below. core + plating  
 other:

## TREATMENT RECORD

## Date

2-6 mechanically cleaned w/ scalpel + glass brush  
 15% formic acid applied by swab. Rinsed in  
 methanol + then placed in 3% Benzotriazole  
 in methanol, 25" Hg  
 2-8 removed from vacuum, passed through methanol,  
 + lacquered with lacralac in toluene, an acrylic  
 lacquer with benzotriazole added as an  
 inhibitor

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 0-2

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience ISBA282-BB821  
 Artifact No. 33  
 Provenience \_\_\_\_\_

Date Started 2/6/86  
 Date Finished 2-8-86  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION buckle part  
 DIMENSIONS 2.3 cm long  
 CONDITION E  G P  
 TREATMENT PRIORITY (H) M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: u mineralized below surface, w/ bronze dust.  
 spot tests: ∴ possible plating on brass? more compact  
 magnet:  
 other: surface, not consistent in cross sections

## TREATMENT RECORD

## Date

2/6 mechanically cleaned w/ qbb + scalpel. 15% formic acid applied by swab. Rinsed in ethanol, then placed in 30% Benzotriazole in methanol under vacuum, 25" Hg

2-8 removed from vacuum, passed thru methanol, + lacquered w/ unclad lacquer in toluene, an acrylic lacquer with benzotriazole added as an inhibitor

- SUMMARY
- |   |
|---|
| <input checked="" type="checkbox"/> scalpel     |
| <input type="checkbox"/> wire brush             |
| <input checked="" type="checkbox"/> glass brush |
| <input type="checkbox"/> vibrotool              |
| <input type="checkbox"/> airbrush               |
| <input type="checkbox"/> electrolysis           |
| <input checked="" type="checkbox"/> chemical    |
| <input type="checkbox"/> ultrasonic             |
| <input type="checkbox"/> hot wash               |
| <input type="checkbox"/> cold wash              |
| <input checked="" type="checkbox"/> dehydrated  |
| <input type="checkbox"/> oven dried             |
| <input checked="" type="checkbox"/> inhibitor   |
| <input checked="" type="checkbox"/> coating     |
| <input type="checkbox"/> reshaped               |
| <input type="checkbox"/> mended                 |
| <input type="checkbox"/> filled                 |
| <input type="checkbox"/> consolidated           |
| <input type="checkbox"/> support                |
| <input type="checkbox"/> biocide                |

## PHOTOGRAPHS

Date

2-8-86

Before/After

BEFORE, ROLL 1, FRAMES 0-2

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA 282 BB 892  
 Artifact No. 34  
 Provenience \_\_\_\_\_

Date Started 2/6/86  
 Date Finished 2/6/86  
 Conservator SINGLEY

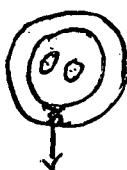
## EXAMINATION

DESCRIPTION bone button

DIMENSIONS 1.5 CM

CONDITION E G P

TREATMENT PRIORITY H M L none



lifting surface

- |  |  |                                    |
|--|--|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input checked="" type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork                  | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood                  | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth                 | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver              | <input type="checkbox"/> leather               | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope                  | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper                 | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: turning faint lathe evident on edge

spot tests:

magnet:

other:

Surface very compact & polished.

## TREATMENT RECORD

## Date

2-6 loose dirt removed w/ scalpel + swabs of methanol. loose spot on perimeter - where surface was lifting - consolidated w/ 15% PVA-PVAT in ethanol.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAME 0-2

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 35  
 Artifact No. 180A282 NB878  
 Provenience \_\_\_\_\_

Date Started 2/11/86  
 Date Finished 2/11/86  
 Conservator SINGLEY

EXAMINATION      DESCRIPTION 3 lead washers  
 DIMENSIONS 1 cm diameter  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none

3 lead washers  
slightly conical



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

TECHNICAL ANALYSIS  
microscopic examination:  
spot tests:  
magnet:  
other:

## TREATMENT RECORD

Date

2/11/86 Cleaned mechanically w/ glass brush + scalpel. Cleaned chemically w/ 5% EDTA (dissolved in 2H<sub>2</sub>O) to remove carbonate. Rinsed in deionized water, dehydrated in <sup>10 min.</sup> <sup>20 min.</sup> ethanol, air dried, + then waxed with a micro-crystalline wax (Barco D-Square) in naphtha.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORE, Roll 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Store away from acidic materials (paper bags, tissue)

## CONSERVATION RECORD

Site 18BA 282  
 Provenience BB832  
 Artifact No. 36  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-7-86  
 Conservator Sugley

## EXAMINATION

DESCRIPTION button fragment and  
1/4 of embossed sheet metal  
 DIMENSIONS 1 cm diam.  
 CONDITION E G P  
 TREATMENT PRIORITY (H) M L none

EAGLE  
EMBOSSEDBUTTON  
FRAG

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | <input type="checkbox"/>           |

TECHNICAL  
ANALYSIS

## microscopic examination:

spot tests: Embossed id appears to be brass w/  
Cu/  
 magnet: , sheet metal plating?  
 other: \_\_\_\_\_

## TREATMENT RECORD

## Date

- 3-19 mechanically cleaned w/vibrotool, scalped, brush placed on 10% EDTA (disodium salt) for 15 min. to loosen corrosion - soln. turns blue, indic. presence of copper
- 3-20 Hot washes changes of deionized water
- 3-21 " "
- 3-22 " "
- 4-10 " "
- Then placed in methanol to dewater.
- 5-7 Removed from methanol and waxed with hot microcrystalline wax.

- SUMMARY**
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

3/18

## Before/After

Before - Roll 2 - Frames 1-3

CURATORIAL  
RECOMMENDATIONS

Keep @ RH &lt; 30%

## CONSERVATION RECORD

Site IS BA 282  
 Provenience BB 849  
 Artifact No. \_\_\_\_\_  
 Provenience 97

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator SUGLEY

## EXAMINATION

DESCRIPTION T-shaped brass fragment - buckle fragment?  
 DIMENSIONS 1.8 cm x 1.5 cm  
 CONDITION (E) G P  
 TREATMENT PRIORITY (H) M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests: presence of plating - more compact  
 magnet:  
 other: layer of copper on grainy brass base  
 patchy

## TREATMENT RECORD

## Date

- 3-19 mechanically cleaned w/ glass brush + scalped  
 5-19 placed overnight in 3% benzotriazole in  
 ethanol under vacuum (22 lbs/in<sup>2</sup>)  
 5-20 Removed from vacuum, passed through ethanol  
 and air dried. Then lacquered with 2 coats  
 of 5% lucrolac in toluene (an acrylic lacquer  
 with benzotriazole added as an inhibitor) applied  
 by brush.

- SUMMARY**
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

3-17-86

## Before/After

BEFORE, ROLL 2, FRAMES 4-6

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18 BA282  
 Provenience BB 2008  
 Artifact No. 38  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION CAST BRASS BUCKLE FRAGMENT? ESCUTCHEON FRAG?  
 DIMENSIONS 2.2 cm x 1.5 cm  
 CONDITION E  G P  
 TREATMENT PRIORITY  H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: brittle - poor alloy for casting?  
 spot tests:  
 magnet:  
 other: bronze disease evident in design

## TREATMENT RECORD

## Date

- 3-19-86 Mechanically cleaned w/ scalpel + glass brush  
 5-19-86 placed in 3% benzotriazole in ethanol under vacuum ( $22 \text{ lbs/in}^2$ ) for 24 hrs.  
 5-20-86 Removed from vacuum and passed through ethanol and air dried. Then lacquered with 2 coats of 5% lacquer in toluene (acrylic lacquer with benzotriazole added as an inhibitor) applied by brush.

- SUMMARY**  
 scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrasive  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## PHOTOGRAPHS

## Date

3-17-86

## Before/After

BEFORE, ROW 2, FRAMES 4-6

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18 BA 282 - BB832  
 Artifact No. 39  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator SINGLEY

## EXAMINATION



Inscription:  
PAT A FOR

DESCRIPTION box hinge brass  
 DIMENSIONS 5cm x 2.2cm  
 CONDITION (E) G P  
 TREATMENT PRIORITY H (M) L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests:

magnet: v. magnetized in internal hinge area, around  
other: pin v. warped - Δ or force?

## TREATMENT RECORD

## Date

2-6 cleaned w/ fiberbrush, immersed in 10% formic acid to try to free the pin, which was v. corroded. Hinge freed. Redeposited copper removed by brushing w/ a wire brush, then glass brush. After rinsing with deionized water + air drying, hinge was placed in 3% benzotriazole in methanol under vacuum, 25" Hg.

2-8 Removed from vacuum, passed through methanol, + lacquered with Inralac in toluene, an acrylic lacquer with benzotriazole added as an inhibitor.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 3-5

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18BA282 B0824  
 Artifact No. ( ) - 40?  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION small brass artifact - hinge or buckle part?

DIMENSIONS \_\_\_\_\_

CONDITION E (G) P

TREATMENT PRIORITY H (M) L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: bronze disease evident in corrosion  
 spot tests: products no original surface - v. pitted  
 magnet:  
 other:

## TREATMENT RECORD

## Date

2-6 corrosion products removed w/ glass brush + scalped  
 15% formic acid swabbed on to Remove  
 corrosion products. Placed in methanol, +  
 then into 3% Benzotriazole in methanol under  
 vacuum, 25" Hg

2-8 removed from vacuum, passed through methanol,  
 + then lacquered with Incolac in toluene, on  
 acrylic lacquer with benzotriazole as an additive

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date

2/3/86

Before/After

BEFORZ, ROLL 1, FRAMES 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 1869 282 B3860  
 Artifact No. 41  
 Provenience \_\_\_\_\_

Date Started 2-12-86  
 Date Finished 2-12-86 4-13-86  
 Conservator SINGLET

## EXAMINATION



DESCRIPTION buckle part

DIMENSIONS 1.3 x 2.3 cm

CONDITION E G P

TREATMENT PRIORITY H M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel          | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver              | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral             | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                 | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: not plated file marks evident  
 spot tests:  
 magnet: in corners.  
 other:

## TREATMENT RECORD

## Date

- 2-12 Cleaned mechanically w/ scalpel + glass brush  
 to remove corrosion. Swabbed w/ 15% formic acid.
- 3-31 placed in 3% benzotriazole in methanol under vacuum, 23" Hg.
- 4-13 Removed, passed through methanol, + air dried. Lacquered w/ lacquer in toluene (acrylic lacquer with benzotriazole added)

- SUMMARY
- scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrasive  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORE, ROLL 1, FRAMES 15-17

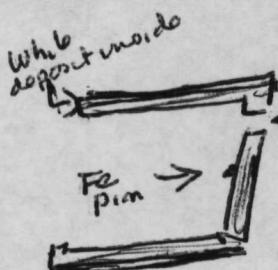
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 180A 282 BB828  
 Artifact No. 42  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION brass buckle fragments - 2

DIMENSIONS 9cm long x 3.8cm wide

CONDITION E G (P)

TREATMENT PRIORITY H (M) L none

<input type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

## TECHNICAL ANALYSIS

microscopic examination: in 2 pieces, w/ remnant of  
 spot tests:  
 magnet: iron pin, white deposit soluble in formic acid  
 other: w/ bubbling. Cuprous chloride? v. brittle brass  
 v. mineralized, with fissures

## TREATMENT RECORD

## Date

2-6 Mechanically cleaned w/ glass fiber brush + scalpel. 15% formic acid swabbed on surface to remove loose corrosion. Placed in 3% benzotriazole in methanol under vacuum, 25" Hg

2-8 Removed from vacuum. Paired through methanol, then lacquered with Melcalac lacquer in bluene, which contains the benzotriazole inhibitor. Pieces not joined, joint too tenuous

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 3-5

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 180A 2B2 B B 1015  
 Artifact No. 43  
 Provenience \_\_\_\_\_

Date Started 2-6-86  
 Date Finished 2-8-86  
 Conservator JINGLEY

## EXAMINATION

DESCRIPTION 2 straight pins

DIMENSIONS 1.3 cm; 2.5 cm

CONDITION E (G) P

TREATMENT PRIORITY H (M) L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet: head applied separately.

other:

## TREATMENT RECORD

## Date

2-6 pins cleaned w/ scalpel + glass brush.  
 Cleaned chemically w/ 15% formic acid.  
 Rinsed in methanol. Placed in 3% benzotriazole in methanol under vacuum, 25" Hg

2-8 removed from vacuum, passed through methanol, and lacquered with Inralac in toluene, an acrylic lacquer w/ Benzotriazole added as an inhibitor.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORZ, ROLL 1, FRAMES 3-5

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site ISBR282 BB860  
 Provenience \_\_\_\_\_  
 Artifact No. 66  
 Provenience \_\_\_\_\_

Date Started MAY 7, 1986  
 Date Finished JUNE 13, 1986  
 Conservator Singley

## EXAMINATION

DESCRIPTION nail + looped pin (?)  
 DIMENSIONS 2 1/4 - 2 1/2 " long  
 CONDITION E G P  
 TREATMENT PRIORITY H (M) L none



fragments  
in hot wash

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination: squared nail  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- May 7 Mechanically cleaned w/ scalpel, mini chisel, + vibrotool  
 May 15 placed in 10% EDTA (citric acid salt) + boiled for 4 hrs. Left overnight in EDTA to cool.  
 May 16 Intensive washing started in changes of deionized water, changed 6x/ day.  
 5-19 Hot wash-continued  
 5-24 Hot wash continued.  
 5-28 TDS meter reading of cooled wash water @ 11 ppm. Solution changed + hot wash continued.  
 5-29 TDS reading @ 6.3 ppm. Solution changed + hot wash cont.  
 6-3 TDS reading @ 4.8 ppm. Solution changed + hot wash cont.  
 6-4 TDS reading @ 8 ppm. Solution changed + hot wash cont.  
 6-9 TDS reading @ 10.1. Solution changed + hot wash cont. Cl<sup>-</sup> test @ end of day on wash water was negative.  
 6-10 TDS reading of cold wash water was 1.7 ppm. Hot wash cont. Cl<sup>-</sup> test @ end of day again negative. Placed in acetone to dewater.  
 6-13 Removed from acetone + sealed w/ hot microcrystalline wax. Mended w/ Durocement

- SUMMARY  
 scalpel  
 wire brush  
 glass brush  
 vibrotool + chisel  
 airbrush  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## Date

## Before/After

PHOTOGRAPHS Before 2/2 Row 1, FRAMES 12-14

## CURATORIAL RECOMMENDATIONS

STORE IN RH < 30%

## **CONSERVATION RECORD**

Site 18BA 282 B6831  
Provenience \_\_\_\_\_  
Artifact No. 68  
Provenience \_\_\_\_\_

Date Started MAY 21, 1986  
Date Finished JUNE 19, 1986  
Conservator SINGLEY

## **EXAMINATION**

DESCRIPTION	3 pieces of iron (snails)		
DIMENSIONS			
CONDITION	E	(G)	P
TREATMENT PRIORITY	H	(M)	L
squared nail 4.3cm	<input type="checkbox"/> copper/brass/bronze <input type="checkbox"/> lead/tin/pewter <input checked="" type="checkbox"/> iron/steel <input type="checkbox"/> gold <input type="checkbox"/> silver <input type="checkbox"/> mineral <input type="checkbox"/> gem	<input type="checkbox"/> bone/ivory <input type="checkbox"/> cork <input type="checkbox"/> wood <input type="checkbox"/> cloth <input type="checkbox"/> leather <input type="checkbox"/> rope <input type="checkbox"/> paper	<input type="checkbox"/> foodstuff <input type="checkbox"/> glass <input type="checkbox"/> ceramic <input type="checkbox"/> stone <input type="checkbox"/> rubber <input type="checkbox"/> other

## TECHNICAL ANALYSIS

microscopic examination:  
spot tests:  
magnet:  
other:

**TREATMENT RECORD**

Date

5/21/86 Mechanically cleaned w/ scalped + vibrators  
 Blister(?) hacked in cleaning + repaired w/ Duro cement  
 5/27/86 Boiled in 10% EDTA for 4 hrs. Left overnight in EDTA  
 5/28/86 Boiling begun in daily changes distilled water,  
     changed bx/day to remove EDTA + Cl<sup>⊖</sup>  
 5-29 HOT WASH CONT'D.  
 6-3 TDS READING FROM PREVIOUS DAY @ 11 ppm. SOLUTION CHANGED +  
     HOT WASH CONT'D.  
 6/4 TDS READING AT 5.6 ppm. SOLUTION CHANGED + HOT WASH CONT'D.  
 6-9 TDS READING AT 5.6 ppm. " " " "  
 6-11 TDS READING @ 2.6 ppm. " " " "  
 6-13 TDS READING @ 1.6 ppm. " " " "  
 6-17 NO READING. SOLUTION CHANGED + HOT WASH CONT'D.  
 6-18 TDS READING AT 0.8 ppm. WATER CHANGED + HOT WASH  
     CONT'D. LAST WASH WATER 1.1 ppm w/ negative CHLORIDE TEST  
     REMOVED + DEWATERED OVERNIGHT IN ACETONE.  
 6-19 IMMERSO IN HOT MICROCRYSTALLINE WAX TO SEAL.

## SUMMARY

- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasivel
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

Date Before/After  
3-17 Row 2 Frames 19+20 BEFORE

## CURATORIAL RECOMMENDATIONS

STORE IN R4 < 30%

## CONSERVATION RECORD

Site IGBA 202  
 Provenience BG767  
 Artifact No. b9  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-7-86  
 Conservator SINGLEY

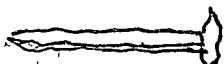
## EXAMINATION

DESCRIPTION squared nail

DIMENSIONS 3.5cm

CONDITION E G P

TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

- 3-19 mechanically cleaned w/ scalpel, brush, vibrotool  
 3-20 boiling started in changes of deionized water  
 3-21 boiled in changes of deionized water  
 3-22 boiled in changes of deionized water.  
 4-10 boiled in changes of deionized water, then placed in methanol to dewater.  
 5-7 removed from methanol and cured in hot microcrystalline wax

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

3-18

BEFORE - ROLL 2 - FRAMES 1-3

## CURATORIAL RECOMMENDATIONS

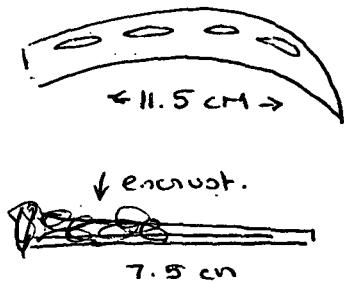
Keep @ RH  $\leq$  30%

# CONSERVATION RECORD

Site ISBA382 BB 833  
 Provenience \_\_\_\_\_  
 Artifact No. 71  
 Provenience \_\_\_\_\_

Date Started MAY 27, 1986  
 Date Finished JUNE 19, 1986  
 Conservator SINGLEY

EXAMINATION	DESCRIPTION	<u>horseshoe + nail</u>	
	DIMENSIONS	<u>11.5 m</u>	<u>7.5 cm</u>
	CONDITION	E <u>(G)</u> P	
	TREATMENT PRIORITY	H <u>(M)</u> L	none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

TECHNICAL  
ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

### Date

5-27-86 placed on electrolysis in 5% Na<sub>2</sub>CO<sub>3</sub>, <sup>4</sup> v.

5-28-86 Removed + hot wash started in changes (6n/day) of deionized water, to remove Cu<sup>2+</sup> + electrolyte

JUNE 3 TDS READING OF PREVIOUS DAY'S WATER @ 11 ppm. WATER CHANGED + HOT WASH CONTINUED.

JUNE 4 TDS READING AT 5.6 ppm. WATER CHANGED + HOT WASH CONT'D.

JUNE 4 TDS READING AT 5.6 ppm. " "

JUN 10 TDS READING AT 2.6 ppm. " "

JUN 11 TDS READING AT 1.6 ppm. " "

JUN 13 TDS READING AT 2.3 ppm. " "

JUN 17 NO TDS READING. HOT WASH CONTINUED.

JUN 18 TDS READING AT 0.8 ppm. WATER CHANGED + HOT WASH CONTINUED. LAST WATER READING AT 1.1 ppm + CHLORIDE TEST NEGATIVE. REMOVED + PLACED IN ACETONE OVERNITE TO DEWATER.

JUN 19 IMMERSSED IN HOT MICROCRYSTALLINE WAX TO SEAL.

- SUMMARY
- |  |
|--|
| <input checked="" type="checkbox"/> scalpel      |
| <input checked="" type="checkbox"/> wire brush   |
| <input checked="" type="checkbox"/> glass brush  |
| <input checked="" type="checkbox"/> vibrotool    |
| <input type="checkbox"/> airbrush                |
| <input checked="" type="checkbox"/> electrolysis |
| <input type="checkbox"/> chemical                |
| <input type="checkbox"/> ultrasonic              |
| <input checked="" type="checkbox"/> hot wash     |
| <input type="checkbox"/> cold wash               |
| <input checked="" type="checkbox"/> dehydrated   |
| <input type="checkbox"/> oven dried              |
| <input type="checkbox"/> inhibitor               |
| <input checked="" type="checkbox"/> coating      |
| <input type="checkbox"/> reshaped                |
| <input type="checkbox"/> mended                  |
| <input type="checkbox"/> filled                  |
| <input type="checkbox"/> consolidated            |
| <input checked="" type="checkbox"/> support      |
| <input type="checkbox"/> biocide                 |

PHOTOGRAPHS	Date	Before/After
	3/17	Row 2, FRAMES 19 + 20

CURATORIAL  
RECOMMENDATIONS

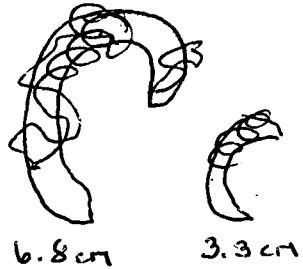
STORE IN RH < 30%

## CONSERVATION RECORD

Site 180A282 BB772  
 Provenience \_\_\_\_\_  
 Artifact No. 72  
 Provenience \_\_\_\_\_

Date Started MAY 27, 1986  
 Date Finished JUNE 19, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION 2 pieces curved iron - chain links?DIMENSIONS 6.8 + 3.3 cm longCONDITION E G (P)TREATMENT PRIORITY H (M) L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> Iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet: patchy "pull" - mineralized areas?  
other:

## TREATMENT RECORD

## Date

5-27-86 Mechanically cleaned w/ chisel, vibrotool +  
scalpel. Boiled for 4 hrs. in 10% EDTA.

2 Left overnight in EDTA

5-28-86 Boiling started in changes deionized water,  
changed b/n day, to remove Cl<sup>-</sup> + EDTA

5-29-86 HOT WASH CONTINUED.

6-3 TDS READING FROM PREVIOUS DAY'S WATER @ 11 ppm.  
SOLUTION CHANGED + HOT WASH CONTINUED.

6-4 TDS READING AT 5.6 ppm. SOLN. CHANGED + HOT WASH CONT.

6-9 TDS READING AT 5.6 ppm. " " "

6-11 TDS READING AT 3.6 ppm. " " "

6-13 TDS READING AT 1.6 ppm. " " "

6-17 NO TDS READING.. SOLUTION CHANGED + HOT WASH CONT.

6-18 TDS READING AT 0.8 ppm. WATER CHANGED + HOT WASH  
CONTINUED. LAST WASH WATER @ 1.1 ppm + NEGATIVE  
TEST FOR CHLORIDES. REMOVED + DEWATERED IN ACETONE

6-19 IMMERSSED IN HOT MICROCRYSTALLINE WAX TO SEAL

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17 Row 2, Framed 19-20 Before

CURATORIAL  
RECOMMENDATIONS

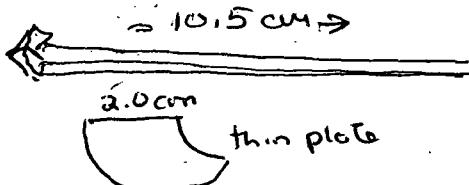
STORE IN RH &lt; 30%

## CONSERVATION RECORD

SITE 18 BAS 82 88889  
 Provenience \_\_\_\_\_  
 Artifact No. 17  
 Provenience \_\_\_\_\_

Date Started MAY 27, 1986  
 Date Finished JUNE 19, 1986  
 Conservator SWAGLEY

## EXAMINATION

DESCRIPTION Nail + iron fragment

DIMENSIONS \_\_\_\_\_

CONDITION E G PTREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel      | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

5-27-86 Mechanically cleaned w/ chisel, scalpel, vibrotool  
 Boiled in 10% EDTA for 4 hrs, left overnight

5-28-86 Boiling begun in changes of deionized water,  
 changed 6x/day, to remove Cl<sup>-</sup> + EDTA

5-29 HOT WASH CONTINUED.

6-3 TDS READING ON PREVIOUS DAY'S WATER @ 11 ppm. WATER CHANGED +  
 HOT WASH CONTINUED.

6-4 TDS READING AT 5.6 ppm. WATER CHANGED + HOT WASH CONT'D.

6-9 TDS READING AT 5.6 ppm. WATER CHANGED + HOT WASH CONT'D.

6-10 TDS READING AT 2.6 ppm. WATER CHANGED + HOT WASH CONT'D.

6-11 TDS READING AT 1.6 ppm. WATER CHANGED + HOT WASH CONT'D.

6-13 TDS READING AT 0.3 ppm. " " " "

6-17 NO TDS READING. HOT WASH CONT'D.

6-18 TDS READING AT 0.8 ppm. WATER CHANGED, HOT WASH CONT'D.  
 LAST WASH WATER 1.1 ppm WITH NEGATIVE CHLORIDE TEST.  
 REMOVED + DEWATERED OVERNIGHT IN ACETONE.

6-19 IMMERSSED IN HOT MICROCRYSTALLINE WAX TO SEAL.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17 Roll 2 Frame 19+20 BEFORE

CURATORIAL  
RECOMMENDATIONS

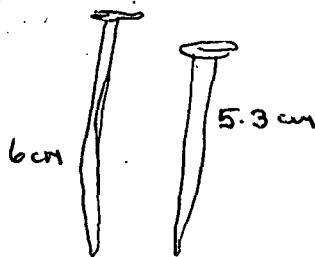
STORE IN RH &lt; 30%

## CONSERVATION RECORD

Site 18BA 382 08912  
 Provenience \_\_\_\_\_  
 Artifact No. 78  
 Provenience \_\_\_\_\_

Date Started MAY 27, 1986  
 Date Finished JUNE 19, 1986  
 Conservator S. GUEY

## EXAMINATION

DESCRIPTION 2 wrought nails

## DIMENSIONS \_\_\_\_\_

CONDITION E (G) PTREATMENT PRIORITY H M (L) none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/ pewter      | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

5-27 Mechanically cleaned w/ chisel, vibrotool, scalpel  
 Boiled in 10% EDTA for 4 hrs, + left overnight.

5-28 Boiling begun in changes of deionized water,  
 changed 6x/day, to remove Cl<sup>-</sup> + EDTA

5-29 HOT WASH CONTINUED.

6-3 TDS READING ON PREVIOUS DAY'S WATER WAS 11 ppm. WATER  
 CHANGED + HOT WASH CONTINUED.

6-4 TDS READING AT 5.6 ppm. WATER CHANGED + HOT WASH CONT'D.

6-9 TDS READING AT 5.6 ppm

6-11 TDS READING AT 3.6 ppm

6-13 TDS READING AT 1.6 ppm

6-17 NO TDS READING. SOLUTION CHANGED + HOT WASH CONT'D.

6-18 TDS READING AT 0.8 ppm. WATER CHANGED + HOT WASH

CONTINUED. LAST WASH WATER @ 11 ppm + CHLORINE  
 TEST WAS NEGATIVE. PLACED IN ACETONE OVERNIGHT TO DEWATER.

6-19 IMMERSSED IN HOT MICROCRYSTALLINE WAX TO SEAL.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

9-17 Row 2 Framed 19x20 BEFORE

CURATORIAL  
RECOMMENDATIONS

STORE IN RH < 30%.

## CONSERVATION RECORD

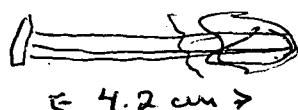
Site 183A-282 BB775  
 Provenience \_\_\_\_\_  
 Artifact No. \_\_\_\_\_  
 Provenience 86

Date Started May 27, 1986  
 Date Finished June 19, 1986  
 Conservator D. KUEY

## EXAMINATION

DESCRIPTION hand

DIMENSIONS \_\_\_\_\_

CONDITION E G PTREATMENT PRIORITY H M L none $\approx 4.2 \text{ cm} \Rightarrow$ 

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/ pewter      | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL

microscopic examination:

## ANALYSIS

spot tests:

magnet: strong

other:

## TREATMENT RECORD

Date

- 5-27 Mechanically cleaned w/ scalpel, chisel, vibrotool  
 Fractured in cleaning; repaired w/ Duco cement  
 Boiled in 10% EDTA for 4 hrs, left overnight in cold bath
- 5-28 Boiling begun in daily changes of deionized water,  
 changed bx/day, to remove EDTA + CI<sup>-</sup>
- 5-29 HOT WASH CONTINUED.
- 6-3 TDS READING FROM PREVIOUS DAY @ 11 ppm. SOLUTION CHANGED  
 + HOT WASH CONTINUED.
- 6-4 TDS READING AT 5.6 ppm. SOLUTION CHANGED + HOT WASH CONT.
- 6-9 TDS READING AT 5.6 ppm
- 6-11 TDS READING AT 3.6 ppm.
- 6-13 TDS READING AT 1.6 ppm.
- 6-17 NO TDS READING. SOLUTION CHANGED + HOT WASH CONT.
- 6-18 TDS READING AT 0.8 ppm. WATER CHANGED + HOT WASH  
 CONTINUED. LAST WASH WATER 1.1 ppm + NEGATIVE TEST  
 FOR CHLORIDES. REMOVED + DEWATERED OVERNIGHT IN PLATEAU
- 6-19 IMMERSO IN HOT MICROCRYSTALLINE WAX TO SEAL.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

Date

Before/After

## PHOTOGRAPHS

3-17 Roll 2 Frames 19-20 BEFORE

CURATORIAL  
RECOMMENDATIONS

STORE IN RH &lt; 30%

## CONSERVATION RECORD

SITE 18.8A2882  
 Provenience 5x5' N 185 W 450  
 Artifact No. 44 Fee 22 Level 1  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 3-20-86  
 Conservator S. COLEY

## EXAMINATION

DESCRIPTION Brass pins + pin fragments (5 small frags)DIMENSIONS .3 cm (longest) / .4 cm (smallest)CONDITION E G PTREATMENT PRIORITY H M L none

- X copper/brass/bronze      bone/ivory      foodstuff  
  lead/tin/pewter      cork      glass  
  iron/steel      wood      ceramic  
  gold      cloth      stone  
  silver      leather      rubber  
  mineral      rope      other  
  gem      paper      ( )

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

bronze disease evident on heads of pins

magnet:

other:

## TREATMENT RECORD

## Date

3-19 cleaned mechanically w/ scalpel + gbb

3-19 placed in 3% benzotriazole in ethanol  
under vacuum ( $2 \times 10^{-2}$ ) for 24 hrs.3-20 removed from vacuum, passed through  
ethanol, and air dried. Then lacquered with  
Incolac (acrylic lacquer in toluene with benzo-  
triazole added as an inhibitor) by applying  
2 coats by brush.

## SUMMARY

- ✓ scalpel  
  wire brush  
✓ glass brush  
  vibrotool  
  airbrush  
  electrolysis  
  chemical  
  ultrasonic  
  hot wash  
  cold wash  
  dehydrated  
  oven dried  
✓ inhibitor  
✓ coating  
  reshaped  
  mended  
  filled  
  consolidated  
  support  
  biocide

## PHOTOGRAPHS

Date

3-17-86

Before/After

Before, Row 2, Frames 4-6CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 183A283  
 Provenience B8901  
 Artifact No. 45  
 Provenience

Date Started 5-27-86  
 Date Finished 6-3-86  
 Conservator SINGUEY

## EXAMINATION

DESCRIPTION Straight pin + miniball

DIMENSIONS See diagram

CONDITION E (G) P

TREATMENT PRIORITY H (M) L none

1.7cm { OR .3cm

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      |                                    |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 5-27 PIN AND MINI-BALL MECHANICALLY CLEANED w/ SCALPEL & GLOVES.  
 MINIBALL PLACED IN 5% EDTA (chelating agent) TO REMOVE CARBONATE  
 ENCrustation. REMOVED & RINSED IN DEIONIZED WATER, THEN  
 ETHANOL, 15 MIN. EACH. ~~LACQUERED~~ WITH INCRALAC.
- 5-29 PIN PLACED IN VACUUM (33 lbs/in<sup>2</sup>) IN 3% BENZOTRIAZOLE (BTA)  
 IN ETHANOL.

- 6-3 PIN REMOVED FROM VACUUM, PASSED THROUGH ETHANOL, + AIR  
 DRIED. LACQUERED WITH 5% INCRALAC IN TOLUENE (ROMAN +  
 HAAS ACRYLIC CO. POLYMER) WITH 1% BTA ADDED AS AN INHIBITOR.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

PHOTOGRAPHS	Date	Before/After	
		3-17 Roll 2 frames 15+16	BEFORE

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience BA 882 B8912  
 Artifact No. 46  
 Provenience \_\_\_\_\_

Date Started 2-12-86  
 Date Finished 4-13-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION bent straight pin

## DIMENSIONS

## CONDITION E G P

## TREATMENT PRIORITY H O L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

2-12 cleaned mechanically w/ Scalpel + glass brush.  
 No chemicals used.

3-31 Placed in 3% benzotriazole in methanol under  
 vacuum. Pulled to 23" Hg

4-13 Removed, passed through methanol, air dried, +  
 lacquered with lacralac (acrylic lacquer with  
 Benzotriazole added) in toluene.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 15-17

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience ISBA 282 BB767  
 Artifact No. BAG #41  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 2-11-86  
 Conservator Sugley

## EXAMINATION



DESCRIPTION spoon handle

DIMENSIONS 5.7 cm

CONDITION E G (P)

TREATMENT PRIORITY H (M) L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

## microscopic examination:

spot tests:

v. focused, but not excessively  
carbonized

magnet:

other:

## TREATMENT RECORD

## Date

2-11 Mechanically cleaned w/ scalpel + glass brush. No EDTA used; carbonate not that heavy. Degreased in methanol, air dried, + then coated with a glerry of microcrystalline wax (Barco B-Square) in naphtha.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, Row 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Store away from materials which emit organic acids (fiberboard, cardboard, tissue paper)

## CONSERVATION RECORD

Site 18BP282  
 Provenience BB 767  
 Artifact No. 43  
 Provenience \_\_\_\_\_

Date Started 5-19-86  
 Date Finished 5-30-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION mini ball  
 DIMENSIONS 1.5 cm diam.  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: The surface appears to be exfoliating.  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

5-19-86 Mechanically cleaned w/ scalpel + glass brush  
 5-20-86 Placed in the following baths to dissolve rest of  
 carbonate corrosion: 10% EDTA disodium salt for  
 20 minutes; 2 changes deionized water, 20 minutes  
 each; 2 changes ethanol, 10 minutes each.  
 Surface then sealed with a slurry of microcrystalline  
 wax or petroleum spirit after mini ball is air dried.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

3-17-86

## Before/After

Before, Roll 2, Frame 8-10

## CURATORIAL RECOMMENDATIONS

Store with acid free materials (tissue) and away  
 from materials that emit organic acids (cardboard,  
 fiberboard, etc.)

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience ~~12A289~~ 12B335  
 Artifact No. 49  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 2-11-86  
 Conservator SWIGLEY

**EXAMINATION**

DESCRIPTION	large metal ball
DIMENSIONS	1.5 cm diam.
CONDITION	E <input checked="" type="checkbox"/> G P
TREATMENT PRIORITY	H <input checked="" type="checkbox"/> M L none

  
 flat bottom  
 fibrous compression in  
 carbonate corrosion  
 layer (grass?)

<input type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

**TECHNICAL ANALYSIS**

microscopic examination:	v. corroded w/ carbonate layer
spot tests:	
magnet:	
other:	

## TREATMENT RECORD

## Date

2/11 cleaned chemically w/ 10% EDTA (disodium salt) by immersing 30 minutes. Rinsed w/ 2 changes of deionized water, 2 @ 10 minutes each. Dewatered w/ methanol. Air dried. Then given 2 coats of Barco - B-Square (micro-crystalline wax) in naphtha.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date

2-3-86

Before/After

BEFORE, Roll 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Keep away from materials that emit organic acids: cardboard, tissue paper, paper bags, fiberboard.

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18BA282-B5839  
 Artifact No. 50  
 Provenience \_\_\_\_\_

Date Started 2/11/86  
 Date Finished 2/11/86  
 Conservator Singley

**EXAMINATION**

DESCRIPTION	small metal ball
DIMENSIONS	1cm diam.
CONDITION	E G <input checked="" type="radio"/> P
TREATMENT PRIORITY	H <input checked="" type="radio"/> M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

**TECHNICAL ANALYSIS**

microscopic examination: appears to be totally mineralized w/ carbonate encrustations. If too much removed, would change the dimension of the ball

spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

2-11 cleaned of carbonate corrosion w/ scalpel. Needle used as a probe to see extent of mineralization. Placed in 5% EDTA (disodium) for 3 min; some dissolution seen. Further cleaning unavoidable because extent of corrosion is so severe that removal of corrosion would prob. change information about ball's dimensions. Rinsed in deionized water, then methanol, air dried, + coated with a swirl of microcryptalene wax (Barco B-Square) w/ Naptha.

- SUMMARY**
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, ROLL 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Keep away from materials that emit organic acids:  
 (cardboard, tissue paper, fiberboard)

## CONSERVATION RECORD

Site 183A282  
 Provenience \_\_\_\_\_  
 Artifact No. B8912  
 Provenience 51

Date Started JUNE 9, 1986  
 Date Finished JUN 9, 1986  
 Conservator SWAGLEY

EXAMINATION      DESCRIPTION lead shot - 3 pieces  
 DIMENSIONS .3 cm diam.  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none

①   
 ②   
 ③ 

- copper/brass/bronze    bone/ivory    foodstuff  
 lead/tin/pewter    cork    glass  
iron/steel    wood    ceramic  
gold    cloth    stone  
silver    leather    rubber  
mineral    rope    other  
gem    paper    ( )

TECHNICAL ANALYSIS      microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

JUN 9 cleaned w/m scalpel + glass brush. Placed in  
 10% EDTA (disodium salt) to dissolve carbonate  
 corrosion -- 5 minutes. Rinsed 10 minutes in  
 deionized water, 10 minutes in ethanol. Coated  
 with a slurry of Renaissance microencapsulated  
 wax in Stoddard solvent.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS BEFORE MARCH 17 FRAMES 17+18 BEFORE

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 13BA 282  
 Provenience BB 978  
 Artifact No. 52  
 Provenience \_\_\_\_\_

Date Started 5-19-86  
 Date Finished 5-20-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION 2 small shot

DIMENSIONS .4 + .3 diam(cm)

CONDITION E G P

TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests: depression in larger of 2 shot  
 magnet:  
 other:

## TREATMENT RECORD

## Date

5-19-86 Cleaned with glass brush & scalped  
 5-20-86 Placed in the following baths to dissolve the rest  
 of the carbonate corrosion: 10% EDTA disodium  
 salt for 30 minutes; 2 changes of deionized water,  
 20 minutes each; 2 changes of ethanol, 10 min.  
 each. Surface then sealed with a slurry of micro-  
 crystalline wax in petroleum spirit after air-drying

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

3-17-86

BEFORE, Roll 2, Frame 8-10

## PHOTOGRAPHS

CURATORIAL  
RECOMMENDATIONS

Store in acid-free tissue and away from materials  
 that emit organic acids (cardboard, fiberboard, etc.)

## CONSERVATION RECORD

Site 18BA282  
 Provenience BG764  
 Artifact No. 53  
 Provenience \_\_\_\_\_

Date Started 5-19-86  
 Date Finished 5-20-86  
 Conservator SIMPLY

## EXAMINATION

DESCRIPTION mini ballDIMENSIONS 0.9 cm diam.CONDITION E G PTREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

smooth surface

magnet:

other:

## TREATMENT RECORD

## Date

5-19 mechanically cleaned with scalpel + glass brush  
 5-20 10% EDTA (dodecaneum salt) used to dissolve carbonate corrosion layer. The mini ball was placed in the EDTA for about 10 minutes, and then rinsed through 3 changes of deionized water, 20 minutes each. The mini ball was then dehydrated in 2 changes of ethanol, 10 minutes each, + then waxed with a slurry of microcrystalline wax in petroleum spirit after air drying.

- SUMMARY
- scalpel
  - wire brush
  - glass brush
  - vibrotool
  - airbrush
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dehydrated
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17-86

BEFORE, Row 2, FRAMES 8-10

## CURATORIAL RECOMMENDATIONS

STORE IN ACID-FREE TISSUE AND AWAY FROM MATERIALS (FIBERBOARD, CARDBOARD) THAT EMIT ORGANIC ACIDS.

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 160A 282 B0911  
 Artifact No. BAX 54  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 2-11-86  
 Conservator JAGLEY

## EXAMINATION

DESCRIPTION tiny lead shot

DIMENSIONS .3cm diam.

CONDITION E (G) P

TREATMENT PRIORITY H (M) L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

2-11-86 cleaned chemically in 10% EDTA (disodium salt) for 5 minutes to dissolve thin carbonate corrosion. Rinsed in one change of deionized water - 10 min. Dewatered in methanol, 10 minutes. An dried & coated with Baracca B. Square microcrystalline wax, thinned w/ naphtha

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Keep away from materials which emit organic acids (cardboard, tissue, fiberboard)

## CONSERVATION RECORD

Site 18 BA 282  
 Provenience BB979  
 Artifact No. 55  
 Provenience

Date Started May 19, 1986  
 Date Finished May 20, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION 11 pieces shot

DIMENSIONS 0.2 - 0.6 diam (cm)

CONDITION E G P

TREATMENT PRIORITY H M L none

0.2 - 0.6 diameters

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

none

magnet:

other:

## TREATMENT RECORD

## Date

5-19 EDTA (10% disodium salt) used to dissolve carbonate corrosion. The pieces were then rinsed in 2 changes of deionized water (20 minutes each) and 2 changes of ethanol (10 minutes each). After air drying, the shot was waxed with a slurry of microcrystalline wax in petroleum spirit.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17-86

Before, Row 2, Frame 8-10

## CURATORIAL RECOMMENDATIONS

Store with acid free tissue and away from materials which emit organic acids (fiberboard, cardboard)

## CONSERVATION RECORD

Site 18BA282 B8863  
 Provenience \_\_\_\_\_  
 Artifact No. 56  
 Provenience \_\_\_\_\_

Date Started 5-19-86  
 Date Finished 5-26-86  
 Conservator SINGLEY

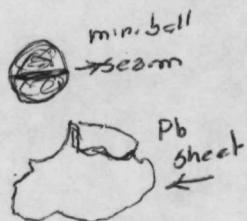
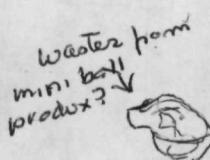
## EXAMINATION

DESCRIPTION 3 small pieces lead

DIMENSIONS \_\_\_\_\_

CONDITION E G (P)

TREATMENT PRIORITY H (M) L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination: none. V. heavy carbonate crust.

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

5-19. mechanically cleaned with scalpel + glass brush.  
 5-20 10% EDTA (disodium salt) used to dissolve  
 carbonate crust. The artifacts were then rinsed  
 in 2 changes of deionized water (30 minutes each)  
 and dewatered in 2 changes of ethanol (10  
 minutes each). After air drying, a wax  
 coating of microcrystalline wax in petroleum  
 spirit was applied as a slurry.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17-86

BEFORE, Row 2, Frames 8-10

CURATORIAL  
RECOMMENDATIONS

Store in acid-free tissue and away from  
 materials (cardboard, fiberboard) which emit  
 organic acids.

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience BBA 282 B13 764  
 Artifact No. 57  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 8-11-86  
 Conservator swagley

## EXAMINATION



## DESCRIPTION

## DIMENSIONS

## CONDITION

E G P

## TREATMENT PRIORITY

H

(M)

L

none

<input type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone/ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> ceramic
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> stone
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> rubber
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests:

v. brittle

magnet:

v. little carbonate, but v. brittle

other:

## TREATMENT RECORD

## Date

2-11 mechanically cleaned w/ scalpel + glass brush. No chemicals  
 Dewatered in methanol. Air dried. Coated with  
 Bareco B-Square microencapsulated wax on nephrite.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, Row 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Keep away from materials which emit organic acids: cardboard, tissue paper, fiberboard.

## CONSERVATION RECORD

Site 18BA282 BB778  
 Provenience " " " " " " " "  
 Artifact No. 58  
 Provenience

Date Started MAY 7, 1986  
 Date Finished JUNE 13, 1986  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION iron hook

DIMENSIONS c. 6" long

CONDITION E G P

TREATMENT PRIORITY H M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

v. robust

magnet:

other:

## TREATMENT RECORD

## Date

- 5-7 Mechanically cleaned w/ scalpel, mini brush, vibrotool  
 5-15 placed in 10% EDTA (disodium salt) + boiled for 4 hrs. Left overnight in EDTA to cool.  
 5-16 intensive washing started in changes of deionized water, changed bx/day  
 5-19 Hot wash continued  
 5-24 Hot wash continued  
 5-28 TDS meter reading of cold wash water @ 11 ppm. Solution changed + hot wash continued.  
 5-29 TDS reading @ 6.2 ppm. Solution changed + hot wash (cont.)  
 6-3 TDS reading @ 4.8 ppm. Solution changed + hot wash cont.  
 6-4 TDS reading @ 8 ppm. Solution changed + hot wash cont.  
 6-9 TDS reading @ 10.1 ppm. Solution changed + hot wash continued. ClO test at end of day w negative.  
 6-10 TDS reading of cold water @ 1.7 ppm. Hot wash continued. ClO test again negative at end of day. Put into acetone to dewater.  
 6-13 Removed from acetone + put into hot microcrystalline wax to seal

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool + chisel
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS 2/2 BEFORE, ROW 1, FRAMES 9-11

CURATORIAL  
RECOMMENDATIONS

STORE IN RH < 30%

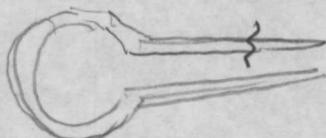
## CONSERVATION RECORD

Site 188A 282  
 Provenience FSB23  
 Artifact No. 59  
 Provenience \_\_\_\_\_

Date Started 3-20-86  
 Date Finished 5-7-86  
 Conservator Sugley

## EXAMINATION

DESCRIPTION Jew's harp  
 DIMENSIONS 4.8 cm  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: orig. was steel - good surface unspotted  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

Date 3-20 Broke during cleaning - unable to be mended -  
3-20 mechanically cleaned w/ scalpel, brush, vibrotool

Boiled in changes of deionized water

3-21 boiled in changes of deionized water

3-22 boiled in changes of deionized water

4-10 boiled in changes of deionized water.

Then placed in methanol to dewater.

5-1 Removed from methanol + waxed with hot  
microcrystalline wax

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

3-18

BEFORE - ROLL 2 - FRAMED 1-3

## CURATORIAL RECOMMENDATIONS

STORE AT RH &lt; 30%

## CONSERVATION RECORD

Site ISDA282 B6885  
 Provenience \_\_\_\_\_  
 Artifact No. 60  
 Provenience \_\_\_\_\_

Date Started MAY 7, 1986  
 Date Finished JUNE 13, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION copper pin?

DIMENSIONS c. 1" long

CONDITION E G P

TREATMENT PRIORITY H M L none

fragment  
in washing  
tip now  
missing

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

- 5-7 Mechanically cleaned w/ scalpel, mini chisel, vibrotool  
 5-15 placed in 10% EDTA (disodium salt) and boiled for 4 hrs.  
 Left overnight in EDTA to cool.  
 5-16 Intensive washing started in changes of deionized water, 6x/day  
 5-19 Hot wash continued.  
 5-24 Hot wash continued.  
 5-28 TDS reading of cold wash water @ 11 ppm. Solution changed + hot wash continued.  
 5-29 TDS reading @ 6.2 ppm. Solution changed + hot wash cont.  
 6-3 TDS reading @ 4.8 ppm. Solution changed + hot wash cont.  
 6-4 TDS reading @ 8 ppm. Solution changed + hot wash cont.  
 6-9 TDS reading @ 10.1 ppm. Solution changed + hot wash cont.  
 CI@ test @ end of day on wash water was G.  
 6-10 TDS reading of cold wash water @ 1.7 ppm. Hot wash cont. CI@ test at end of day again negative. Placed in acetone to dewater.  
 6-13 Removed from acetone + sealed w/ hot microencapsulated wax.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool + chisel
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS 2/2 BEFORE Row 1 FRAMES 12-14

## CURATORIAL RECOMMENDATIONS

STORE IN RH < 30 %

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 18DA282 B3271  
 Artifact No. 61  
 Provenience \_\_\_\_\_

Date Started 2-12-86  
 Date Finished 4-13-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION button fragment  
 DIMENSIONS 1.5 CM  
 CONDITION E G (P)  
 TREATMENT PRIORITY H (M) L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter     | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: white metal containing Cu (Cu corrosion product)  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

3-12 Cleaned w/ steel + fiber brush. Swabbed  
in 15% formic acid to heighten plating.

3-31 placed in 3% benzotriazole under vacuum.  
Vacuum raised to 23" Hg.

4-13 Removed from chamber. Passed through  
methanol and allowed to dry. Lacquered  
with Inralac (acrylic lacquer w/ 10%  
benzotriazole added) in toluenes.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 15-17

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site IS.BA.382  
 Provenience 80863  
 Artifact No. b2  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-20-86  
 Conservator DINGLEY

## EXAMINATION

DESCRIPTION Buckle fragment  
 DIMENSIONS 4.2 cm x 2.2cm  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: raised bands of decoration  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

3-19-86 Mechanically cleaned w/ scalpel + glass brush  
 5-19-86 placed overnight in 3% benzotriazole in ethanol under vacuum ( $22.1 \text{ lb/in}^2$ )  
 5-20-86 Removed from vacuum, passed through ethanol,  
 + air dried. Then lacquered w/ in 2 coats of  
 Inralac (acrylic lacquer in toluene w/ 1%  
 benzotriazole added as an inhibitor) applied by  
 brush.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

3-17-86

## Before/After

BEFORE, Row 2, Frames 4-6

CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 183A 282 829  
 Artifact No. b3  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 2-11-86  
 Conservator SAWLEY

## EXAMINATION



DESCRIPTION rolled piece of lead  
 DIMENSIONS 2.5 cm long  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: carbon, hydrated silica fragments  
 spot tests:  
 magnet:  
 other:

(glass flakes?) in corrosion product  
 2000x w/ window.: ?

## TREATMENT RECORD

## Date

2-11-86 cleaned w/ glass fiber brush + scalped to remove local corrosion. Then placed for 3 min. in EDTA (Glauber's salt) 5% to remove corrosion in crevices & in roll.  
 Then soaked in deionized water 5 minutes, followed for 20 min. by methanol to dewater. Allowed to air dry, + then coated with microcrystalline wax (Bancro B-Square) in naphtha.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, ROLL 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

Keep away from materials that emit organic acids: cardboard, tissue paper, fiberboard.

## CONSERVATION RECORD

Site 18BA282  
 Provenience BB770  
 Artifact No. 64  
 Provenience \_\_\_\_\_

Date Started MARCH 19, 1986  
 Date Finished May 7, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION squared nail

DIMENSIONS 8 cm

CONDITION E G P

TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 3/19 Mechanically cleaned w/ scalpel + vibrotool  
 3/20 Boiled in changes of deionized water  
 3/21 Boiled in changes of deionized water.  
 3/22 Boiled in changes of deionized water.  
 4-10 Boiled in changes of deionized water.  
 Then placed in methanol to dewater.  
 5-7 Removed from methanol + waxed with hot  
 microcrystalline wax.

- SUMMARY**  
 scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrasive  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## PHOTOGRAPHS

Date

3-18

Before/After

B E F O R E - R O L L 2 -      F R A M E S 1 - 3

## CURATORIAL RECOMMENDATIONS

STORE @ RH < 30%

## CONSERVATION RECORD

Site 13BA282 BG832  
 Provenience \_\_\_\_\_  
 Artifact No. 65  
 Provenience \_\_\_\_\_

Date Started MAY 27, 1986  
 Date Finished JUNE 19, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION iron - folded barDIMENSIONS 6.5 x 1.9 cmCONDITION E G PTREATMENT PRIORITY H M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

magnet: strong

other:

## TREATMENT RECORD

## Date

MAY 27, 1986 placed in electrolysis in 5% Na<sub>2</sub>CO<sub>3</sub>, 24V.MAY 29, 1986 REMOVED FROM ELECTROLYSIS + PLACED IN HOT WASH  
IN CHANGED OF DEIONIZED WATER, CHANGED 6X/DAY.JUNE 3, 1986 TDS READING OF PREVIOUS DAY'S WATER @ 11 ppm.  
WATER CHANGED + HOT WASH CONTINUED.

JUN 4 TDS READING AT 5.6 ppm. WATER CHANGED; HOT WASH

JUN 9 TDS READING AT 5.6 ppm. " " "

JUN 10 TDS READING AT 3.6 ppm. " " "

JUN 11 TDS READING AT 1.6 ppm " " "

JUN 13 TDS READING AT 2.3 ppm. " " "

JUN 17 NO TDS READING. HOT WASH CONT'D.

JUN 18 TDS READING AT 2.8 ppm. WATER CHANGED + HOT WASH  
CONTINUED. LAST WATER READING @ 1.1 ppm WITH A  
NEGATIVE CHLORIDE TEST. REMOVED + PLACED IN  
ACETONE OVERNIGHT TO DRY.JUN 19 IMMERSSED IN HOT MICROCRYSTALLINE WAX TO  
SEAL.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17 Roll 2, Frame 1 card 0 BEFORE

CURATORIAL  
RECOMMENDATIONS

STORE IN RH &lt; 30%

## CONSERVATION RECORD

Site 180A282  
 Provenience BBB30  
 Artifact No. 79  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-00-86  
 Conservator SINGLEY

## EXAMINATION

Ends are  
bevelled

DESCRIPTION brass rod / wire

DIMENSIONS 18 cm (bent), 2 cm in diameter

CONDITION E G P

TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: note ends of wire -- not blunt  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

3-19 Mechanically cleaned with scalpel + glass brush

3-19 Immersed in 3% benzotriazole in ethanol  
 under vacuum (22 lbs/in<sup>2</sup>) for 24 hrs.

5-20 removed from vacuum, passed through ethanol,  
 + air dried. Then lacquered with Melolac (acrylic  
 lacquer in toluene with benzotriazole added as  
 an inhibitor) 2 coats applied by brush.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date

3-17-86

Before/After

BERBZ, Roll 2, Frames 1800mp

4-6

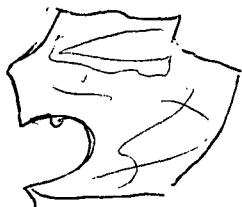
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18 BA 282  
 Provenience 00772  
 Artifact No. 1 ) 90?  
 Provenience

Date Started 5-19-86  
 Date Finished 5-20-86  
 Conservator SINGLET

## EXAMINATION



DESCRIPTION piece of lead

## DIMENSIONS

CONDITION E G P

TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel      | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      |                                    |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests:

magnet:

other:

v. heavy, v. mineralized

## TREATMENT RECORD

## Date

5-19 The very hoary coating of lead carbonate was removed partially using scalpel, glass brush + vibrated.

5-20 The rest of the tenacious carbonate was removed chemically with 10% EDTA (disodium salt)

by immersing in a solution for 1/2 hr. The fragment was then rinsed in 2 changes of deionized water, 1/2 hr. each, + 2 changes of ethanol, 30 minutes each. The surface was coated with a slurry of microcrystalline wax in petroleum spirit after air drying.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

3-17-86

BEFORE, Roll 2, Frame 8-18

## CURATORIAL RECOMMENDATIONS

Store with acid-free materials (tissue) away from materials (cardboard, fiberboard) which emit organic acids.

## CONSERVATION RECORD

Site 18 BA 282  
 Provenience 88 832  
 Artifact No. 31  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-7-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION Knife blade fragment  
 DIMENSIONS 4.5 cm  
 CONDITION E  G P  
 TREATMENT PRIORITY H  M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 3-19 Mechanically cleaned by brush, vibrotool, scalpel  
 3-20 Boiling begun in changes of deionized water  
 3-21 boiled in changes of deionized water  
 3-22 boiled in changes of deionized water.  
 4-10 boiled in changes of deionized water, then placed in methanol to dewater.  
 5-7 Removed from methanol and waxed with hot microcryptallene wax.

- SUMMARY**  
 scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrasive  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

## PHOTOGRAPHS

## Date

3-18

## Before/After

Before - Roll 2 - Frames 1-3

## CURATORIAL RECOMMENDATIONS

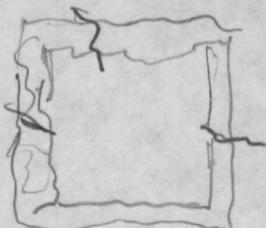
Keep at RH &lt; 30%

## CONSERVATION RECORD

Site 18 BA 282  
 Provenience BB 780  
 Artifact No. 82  
 Provenience \_\_\_\_\_

Date Started 3/19/86  
 Date Finished 5-7-86  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION Square iron buckle

DIMENSIONS 3 cm

CONDITION E G P

TREATMENT PRIORITY H M D none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: one side well preserved  
 spot tests: aeration cell?

magnet:

other: fractured during cleaning

## TREATMENT RECORD

- Date      Description
- 3-19      joined w/ Ducco cement  
 Mechanically cleaned w/ scalped + vibrotool
- 3-20      Soaking started in changes of deionized water
- 3-21      Soaked in changes of deionized water
- 3-22      Soaked in changes of deionized water
- 4-10      Soaked in changes of deionized water, +  
 then placed in methanol to dewater.
- 5-7      Removed from methanol, and waxed with  
 hot microcrystalline wax. Fractures repaired  
 w/ Ducco cement (dissolved in methanol)

- SUMMARY**
- scalpel  
 wire brush  
 glass brush  
 vibrotool  
 airbrush  
 electrolysis  
 chemical  
 ultrasonic  
 hot wash  
 cold wash  
 dewatered  
 oven dried  
 inhibitor  
 coating  
 reshaped  
 mended  
 filled  
 consolidated  
 support  
 biocide

Date

Before/After

## PHOTOGRAPHS

3-18

BEFORE - ROLL 2 - FRAMES 1-3

## CURATORIAL RECOMMENDATIONS

Keep at RH < 30%

## CONSERVATION RECORD

Site 153A282  
 Provenience B0B34  
 Artifact No. 83  
 Provenience \_\_\_\_\_

Date Started June 9, 1986  
 Date Finished June 9, 1986  
 Conservator SINGLEY

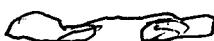
## EXAMINATION

DESCRIPTION lead fragment

DIMENSIONS 2.5 cm

CONDITION E G (P)

TREATMENT PRIORITY H M (L) none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

possible waste from Pb  
 ball or shot manufacture?

## TREATMENT RECORD

## Date

June 9 mechanically cleaned with scalpel + glass brush  
 Placed in 10% EDTA (disodium salt) for 10 minutes to dissolve carbonate corrosion. Ultra sonic used for 60 seconds as well. Rinsed in 2 changes of deionized water for 10 minutes, then ethanol for 10 minutes. Air dried and coated with Renaissance microcrystalline wax sparingly in standard solvent.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS MARCH 17 ROLL 2 FRAMES 17 + 18 BEFORE

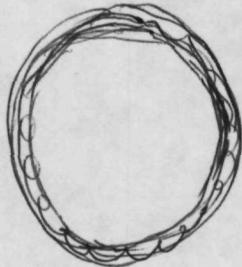
CURATORIAL  
RECOMMENDATIONS

## CONSERVATION RECORD

Site 18BA 282 BB764  
 Provenience \_\_\_\_\_  
 Artifact No. 84  
 Provenience \_\_\_\_\_

Date Started MAY 7, 1986  
 Date Finished JUNE 13, 1986  
 Conservator SINGLEY

## EXAMINATION



DESCRIPTION iron ring + flat piece  
 DIMENSIONS ring 1 5/8" diam / piece 1 3/4"  
 CONDITION E (G) P  
 TREATMENT PRIORITY H M (L) none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

May 7 Mechanically cleaned w/ scalpel, min. chisel; v. brottool  
 May 15 Placed in 10% EDTA (disodium salt) to boil for 4 hrs.  
 Left overnight in EDTA to cool.  
 May 16 Intensive washing in deionized water, changed bx day, bogum  
 5-19 Hot wash continued  
 5-24 Hot wash continued.  
 5-28 TDS meter reading of cold wash water @ 11 ppm. Solution  
 changed + hot wash continued.  
 5-29 TDS reading @ 6.3 ppm. Solution changed + hot wash cont  
 6-3 TDS reading @ 4.8 ppm.  
 6/4 TDS reading @ 3 ppm.  
 6/9 TDS reading @ 10.1  
 - ETO test at end of day was negative.  
 6-10 TDS reading of cold wash water was 1.7 ppm. Hot wash  
 continued. ETO test @ end of day again negative. Placed  
 into acetone to dewater.  
 6/13 Removed from acetone + sealed w/ hot microcrystalline wax

## SUMMARY

- scalpel
- wire brush
- glass brush
- Vibrotool + chisel
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS 2/2 BEFORE, Row 1, FRAMES 9-11

CURATORIAL  
RECOMMENDATIONS

STORE IN RH &lt;30%

## CONSERVATION RECORD

Site ISBA 282 BB 890  
 Provenience \_\_\_\_\_  
 Artifact No. 87  
 Provenience \_\_\_\_\_

Date Started 2/12  
 Date Finished 4/13-86  
 Conservator Sanday

## EXAMINATION

DESCRIPTION brazo sheet fragment  
 DIMENSIONS 2 cm  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> copper/brass/bronze | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter                | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                     | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                           | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                         | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                        | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                            | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: bronze discoloration w/ patches  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 2-12 mechanically cleaned w/ fiber brush + sandpaper  
 3-31 placed in 3% benzotriazole under vacuum. Vacuum draw to 23" Hg  
 4/13 removed from vacuum, passed through methanol, and lacquered with Imralac (acrylic lacquer with benzotriazole) in toluene.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

## Date

2-3-86

## Before/After

BEFORE, Roll 1, Frames 15-17

## CURATORIAL RECOMMENDATIONS

## CONSERVATION RECORD

Site 18017-282  
 Provenience BB 979  
 Artifact No. 29  
 Provenience \_\_\_\_\_

Date Started 5-19-86  
 Date Finished 5-20-86  
 Conservator SINGLBY

## EXAMINATION

DESCRIPTION 2 small lead fragments

## DIMENSIONS \_\_\_\_\_

CONDITION E G P

TREATMENT PRIORITY H M L none

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## microscopic examination:

TECHNICAL ANALYSIS spot tests: none  
 magnet:  
 other:

## TREATMENT RECORD

## Date

5-19. 10% EDTA (disodium salt) used to dissolve  
 + 5-20 carbonate corrosion. A glass brush was also  
 used to remove the corrosion. The pieces were  
 then rinsed in 2 changes of deionized water  
 (20 minutes each) + 2 changes of ethanol  
 (10 minutes each). A wax slurry of microcryst.  
 tallene wax on petroleum spirit was applied  
 to seal the surface after air drying.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

5-19

BEFORE, Row 2; Frame S-10

CURATORIAL  
RECOMMENDATIONS

Store w/ acid-free tissue + away from  
 materials (cardboard, fiber board), which emit  
 organic acids.

## CONSERVATION RECORD

Site 188A 1015  
 Provenience B81015  
 Artifact No.  
 Provenience 90

Date Started JUNE 9, 1986  
 Date Finished JUNE 11, 1986  
 Conservator SINGET

**EXAMINATION**      DESCRIPTION IRON TACK  
 DIMENSIONS 1 CM  
 CONDITION E G P  
 TREATMENT PRIORITY H M Q none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

**TECHNICAL ANALYSIS**  
 microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

Date

June 9 mechanically cleaned w/ scalpel. Placed over night in 10% EDTA (disodium salt) to loosen rust products.

June 10 Hot washed in changes of deionized water (changed 6 x / day) to flush out chlorides and EDTA. No monitoring of wash water.

June 11 TDS reading of cold wash water @ 3.5. HOT wash continued. At end of day, put into acetone to dewater.

June 13 Removed from acetone + placed into hot micro-oven to coat.

- SUMMARY**
- |  |
|--|
| <input checked="" type="checkbox"/> scalpel    |
| <input type="checkbox"/> wire brush            |
| <input type="checkbox"/> glass brush           |
| <input type="checkbox"/> vibrotool             |
| <input type="checkbox"/> airbrasive            |
| <input type="checkbox"/> electrolysis          |
| <input checked="" type="checkbox"/> chemical   |
| <input type="checkbox"/> ultrasonic            |
| <input checked="" type="checkbox"/> hot wash   |
| <input type="checkbox"/> cold wash             |
| <input checked="" type="checkbox"/> dewatered  |
| <input checked="" type="checkbox"/> oven dried |
| <input checked="" type="checkbox"/> inhibitor  |
| <input checked="" type="checkbox"/> coating    |
| <input type="checkbox"/> reshaped              |
| <input type="checkbox"/> mended                |
| <input type="checkbox"/> filled                |
| <input type="checkbox"/> consolidated          |
| <input type="checkbox"/> support               |
| <input type="checkbox"/> biocide               |

Date	Before/After
------	--------------

**PHOTOGRAPHS**      MARCH 17      Row 2 Frame 17+18      BEFORE

**CURATORIAL  
RECOMMENDATIONS**

Keep at RH < 30%

## CONSERVATION RECORD

Site \_\_\_\_\_  
 Provenience 180A282 B8823  
 Artifact No. 91  
 Provenience \_\_\_\_\_

Date Started 2-11-86  
 Date Finished 2-11-86  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION small piece of curled lead

DIMENSIONS 1.5 cm

CONDITION E G P

TREATMENT PRIORITY H M ① none

Small curled lead



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination: slight ridge on edge

spot tests:

v. fissured

magnet:

other:

## TREATMENT RECORD

## Date

2-11 cleaned chemically w/ 5% EDTA (disodium salt) 5 min.  
 + with scalpel + glass fiber brush. Rinsed in  
 deionized water, then methanol. Air dried +  
 coated with a slurry of microcrystalline wax  
 (Barco B-Square) in naphtha.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## Date

## Before/After

## PHOTOGRAPHS

2-3-86

BEFORE, Roll 1, FRAMES 6-8

## CURATORIAL RECOMMENDATIONS

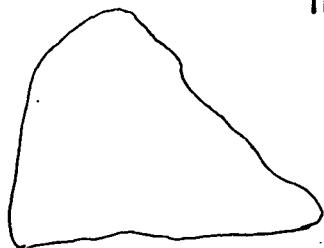
Store away from materials that emit organic acids  
 (fiber board, tissue, paper bags, cardboard)

## CONSERVATION RECORD

Site 18 BA 282 BB 874  
 Provenience \_\_\_\_\_  
 Artifact No. ( ) 93?  
 Provenience \_\_\_\_\_

Date Started May 7, 1986  
 Date Finished June 13, 1986  
 Conservator Singley

## EXAMINATION

DESCRIPTION Ketela fragmentDIMENSIONS 3 1/2 x 3 "CONDITION E G PTREATMENT PRIORITY H M L none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

microscopic examination: v. substantial

## TECHNICAL ANALYSIS

spot tests:

magnet:

other:

## TREATMENT RECORD

## Date

- May 7 mechanically cleaned with scalpel, chisel, vibrotool  
 May 15 placed in boiling 10% EDTA (ethylenediamine salt) for 4 hrs. Left overnight to cool.  
 May 16 Intensive washing in changes (bx/day) deionized water started.  
 5-19 Hot wash continued.  
 5-24 Hot wash continued.  
 5-28 TDS reading of cold wash water @ 11 ppm. Solution changed + hot wash continued  
 5-29 TDS reading @ 6.2 ppm. Solution changed + hot wash cont.  
 6-3 TDS " " 4.8 ppm.  
 6-4 TDS reading @ 8 ppm.  
 6-9 TDS reading @ 10.1 ppm.  
 ClO test at day's end on wash water is negative.  
 6-10 TDS reading of cold wash water is 1.7 ppm. Hot wash continued. ClO test at day's end again negative. Placed in acetone to dry/water  
 6-13 Removed from acetone + sealed w/ hot microcrystalline wax

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS 2/2 BEFORE Row 1 9-11

CURATORIAL  
RECOMMENDATIONS

STORE IN RH &lt; 30%

## CONSERVATION RECORD

Site 1834 282  
 Provenience BB888  
 Artifact No. ( ) 105?  
 Provenience \_\_\_\_\_

Date Started 3-19-86  
 Date Finished 5-7-86  
 Conservator SINGLET

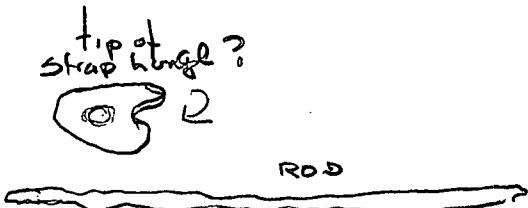
## EXAMINATION

DESCRIPTION rod + hinge fragments

DIMENSIONS 12 cm

CONDITION E G P

TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | <input type="checkbox"/>           |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests: raised knot on hinge fragment  
 magnet:  
 other:

## TREATMENT RECORD

## Date

3-19 mechanically cleaned w/ scalpel, brush, vibrated

3-20 boiled in changes of deionized water

3-31 "

3-32 "

4-10 "

Then placed in methanol to dehydrate

5-7 Removed from methanol and waxed with hot monocrystalline wax.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

3-18

before  
 ROLL 2 - Frames 1-3

## CURATORIAL RECOMMENDATIONS

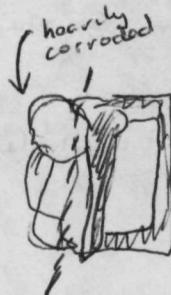
Should be kept at a RH < 30%

## CONSERVATION RECORD

Site 13.BA.982 B0839  
 Provenience \_\_\_\_\_  
 Artifact No. 107  
 Provenience \_\_\_\_\_

Date Started MAY 9, 1986  
 Date Finished JUNE 13, 1986  
 Conservator SWB

## EXAMINATION



DESCRIPTION IRON buckle

DIMENSIONS 7/8" x 7/8"

CONDITION E G P

TREATMENT PRIORITY H M Q none

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      |                                    |

## TECHNICAL ANALYSIS

microscopic examination:

spot tests:

feel spent during cleaning

magnet:

other:

## TREATMENT RECORD

## Date

May 1 Mechanically cleaned w/ scalpel, vibrotool, + min. chisel.

May 15 Placed in boiling 10% EDTA (diwaterous salt) for 4 hrs.  
Left overnight to cool in the EDTA.

May 16 Intensive washing in deionized water, changed 6x/day

5/19 Hot wash continued

5/24 Hot wash continued.

5/28 TDS meter reading of cooled wash water @ 11 ppm.

Solution changed + hot wash continued.

5/29 TDS meter @ 6.2 ppm. Solution changed + hot wash cont.

6-3 TDS meter @ 4.8 ppm "

6-4 TDS meter @ 3 ppm. " "

6-9 TDS meter @ 10.1 ppm " "

Q1G test on wash water at drip end is negative. →

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool + chisel
- airbrasice
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

PHOTOGRAPHS Before, Row 1, Frames 12-14 BEFORE

## CURATORIAL RECOMMENDATIONS

STORE IN RH &lt; 30%

6.10 TDS reading of cold wash water is 1.7 ppm. Hot wash continued. ClO test at end of day was again negative. Placed in acetone to dehydrate.

6.13 Removed from acetone + sealed w/ hot microcrystalline wax.

## CONSERVATION RECORD

Site 18BA 282  
 Provenience BB10FT  
 Artifact No. 111  
 Provenience Fca 10L17

Date Started 3-19-86  
 Date Finished 5-7-86  
 Conservator SINGLET

## EXAMINATION

DESCRIPTION Fragment of shoe buckle (tongue)  
 DIMENSIONS 2.3cm  
 CONDITION E G P  
 TREATMENT PRIORITY H M L none



- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze   | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input type="checkbox"/> lead/tin/pewter       | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input checked="" type="checkbox"/> iron/steel | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                  | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral               | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                   | <input type="checkbox"/> paper      | ( )                                |

## TECHNICAL ANALYSIS

microscopic examination:  
 spot tests:  
 magnet:  
 other:

## TREATMENT RECORD

## Date

- 3-19 mechanically cleaned w/ scalpel, brush, vibrotool  
 3-20 boiled started in changes of deionized water  
 3-21 Boiled in changes of deionized water.  
 3-22 Boiled in changes of deionized water.  
 4-10 boiled in changes of deionized water, and  
     then placed in methanol to dewater  
 5-17 Removed from methanol + waxed with hot  
     microcrystalline wax. Fragmented in handling  
     when cooled, joined w/ Duocement (see diagram)  
 5-17 DUO FAILED. JOIN REDONE WITH HAROMAN  
     CRYSTAL CLEAR EPOXY.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- Xcoating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

## PHOTOGRAPHS

Date  
 3-19

Before/After  
 BEFORE, ROLL 2, FRAMES 1-3

## CURATORIAL RECOMMENDATIONS

STORE @ RH < 30%

## CONSERVATION RECORD

Site 183A282  
 Provenience 112  
 Artifact No. BG 855  
 Provenience \_\_\_\_\_

Date Started MAY 20, 1986  
 Date Finished MAY 20, 1986  
 Conservator SINGLEY

## EXAMINATION

DESCRIPTION lead sheeting frag.

DIMENSIONS 2.4 x 1.6 cm.

CONDITION E G P

TREATMENT PRIORITY H M L none



- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> copper/brass/bronze        | <input type="checkbox"/> bone/ivory | <input type="checkbox"/> foodstuff |
| <input checked="" type="checkbox"/> lead/tin/pewter | <input type="checkbox"/> cork       | <input type="checkbox"/> glass     |
| <input type="checkbox"/> iron/steel                 | <input type="checkbox"/> wood       | <input type="checkbox"/> ceramic   |
| <input type="checkbox"/> gold                       | <input type="checkbox"/> cloth      | <input type="checkbox"/> stone     |
| <input type="checkbox"/> silver                     | <input type="checkbox"/> leather    | <input type="checkbox"/> rubber    |
| <input type="checkbox"/> mineral                    | <input type="checkbox"/> rope       | <input type="checkbox"/> other     |
| <input type="checkbox"/> gem                        | <input type="checkbox"/> paper      | ( )                                |

## microscopic examination:

## TECHNICAL ANALYSIS

spot tests: v. friable + weak  
 magnet:  
 other:

## TREATMENT RECORD

## Date

5-20 The sheeting was cleaned using a scalpel + glass brush. The rest of the carbonate corrosion was removed with 10% EDTA (disodium salt) for 10 minutes. The sheeting was then rinsed in 2 changes of deionized water for 20 minutes each + dehydrated in 2 changes of ethanol for 10 minutes each. A wax coating of microcrystalline wax in petroleum spirits was then applied in a slurry to seal.

## SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date

Before/After

## PHOTOGRAPHS

3-17-86

BEFORE, Roll 2, FRAMES 8-10

## CURATORIAL

Store w/ acid free materials + away from materials  
 RECOMMENDATIONS that emit organic acids (cardboard, fiberboard)

18 BA 282

9 pins  
13 buttons  
3 rice  
1 buckle frag  
1 coin  
1 handle frag

3 bottle glass  
1 glass lens

Glass

Feat 10

- B ① 3 (large pieces 18<sup>th</sup> wine) bottle  
(1 w/ neck rim; 1 shoulder; 1 base)

- B ② 1 lens Feat. 22 - eyeglass?

Metal

Feat 10

- B ④ # 1233 2 straight pins  
B ⑤ # 1234 3 1/2 straight pins  
B ⑥ # 1235 1 straight pin  
B ③ # 1235 1 iron object - nail? w/ square head

Feat 22

- B ⑩ # 1201 1 straight pin  
B ⑪ # 1203 1 broken straight pin  
B ⑫ # 1203 1 button  
B ⑬ # 1203 1 button  
B ⑭ # 1203 1 button  
B ⑯ # 1203 1 button w/ PLATED ...  
B ⑮ # 1202 1 large iron bolt?  
B ⑨ # 1208 1 button  
B ⑧ # 1208 1 straight pin  
B ⑦ # 1208 1 iron object - fork end?

~~Plow zone~~ - Metal

- B (25) # 695 1 button  
B (16) # 1152 1 buckle? fragment (matches one from 1985)  
B (17) # 1162 1 coin  
B (18) # 1162 1 button  
B (19) # 1166 1 handle fragment  
B (20) # 1167 1 button  
B (21) # 1167 1 button  
B (22) # 1167 1 button  
B (23) # 1146 1 button  
B (24) # 1146 1 button large  
B (27) # 1153 1 button "WARRANTED"

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number (1) Date treatment started March 2, 1987  
Artifact type 1234 Date completed April 15, 1987  
Date of recovery Conservator K. Singley  
Site Log Entry  
Provenience Fca 10 NW 1/4 layer 23

Description bone handled knife Dimensions 12 cm long  
Weight  
Condition E G P

Photo attached \_\_\_\_\_  
see contact sheets copper/brass/bronze X bone, ivory foodstuff  
lead/tin/pewter cork glass  
iron/steel wood rubber  
gold cloth ceramic  
silver leather stone, clay  
mineral rope other  
gem paper ( )

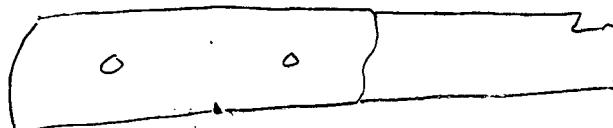
Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priority for treatment:

(3)

2

1

0

(high) (medium) (low) (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests

Chloride test (+) (-)

X-Ray

Other

DatesTreatment Record

March 2-11

The artifact was cleaned mechanically using vibrotrowl, scalpel, ~~bone~~ removed in cleaning. Iron fragmented in cleaning.

March 13

thru  
March 13

Iron was boiled in changes of deionized water for 3 days, changed 8x/day. Iron air dried afterwards.

March 13-

The artifact was treated with a chemical inhibitor to prevent further

April 13

corrosion. The artifact was placed under vacuum ( $1 \text{ lbs/in}^2$ ) for hrs.

in a solution of CRC 3-36 for 2 months.

April 13-14

The artifact was removed, air dried, and given a protective coating of 10% Acryloid B-72 in tolene. Bone panels &amp; fragments adhered with UHU adhesive.

Treatment Summary scalpel, pick wire brush glass brush air abrasive/sand blast electrolytic reduction chemical cleaning ultrasonic vibrotrowl intensive wash, hot intensive wash, cold de-watered (solvent) oven dried inhibitor coating reshaped mended bleached filled consolidated special support silica gel biocideDatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 6-20

X

4-17-87

contact sheet 2, frame 0-5

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 03 Date treatment started 4-15-87  
Artifact type \_\_\_\_\_ Date completed \_\_\_\_\_  
Date of recovery \_\_\_\_\_ Conservator K. Singler  
Site Log Entry \_\_\_\_\_  
Provenience 18BA282 - 1235

Description \_\_\_\_\_ Dimensions 4.1 cm long  
Weight \_\_\_\_\_ Condition E S P

Photo attached \_\_\_\_\_ copper/brass/bronze \_\_\_\_\_ bone, ivory \_\_\_\_\_ foodstuff  
see contact sheets lead/tin/pewter \_\_\_\_\_ cork \_\_\_\_\_ glass  
iron/steel \_\_\_\_\_ wood \_\_\_\_\_ rubber  
gold \_\_\_\_\_ cloth \_\_\_\_\_ ceramic  
silver \_\_\_\_\_ leather \_\_\_\_\_ stone, clay  
mineral \_\_\_\_\_ rope \_\_\_\_\_ other  
gem \_\_\_\_\_ paper \_\_\_\_\_

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priority for treatment:

(3)

2

1

0

(high)

(medium)

(low)

(none)

Analysis/Examination

## Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

MagnificationDates      Treatment Record

4-15-87      The artifact was cleaned mechanically using vibratool + scalped

4-15-87      The artifact was washed in changes of deionized water to remove  
thru      as many chlorides as possible. The wash water was changed at  
4-17-87      least 8x per day.The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $\text{lbs/in}^2$ ) for hrs.  
in a solution of de-watered overnight in ethanol  
4-17-87      The artifact was removed, air dried, and given a protective coating of  
thru      10% Acryloid B72 in Toluene  
4-18-87Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

 v. brotool

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 31-33	X	
4-18-87	contact sheet 3, frame 6-9		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B4 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1233

Description 2 straight pins - plated w/ tin Dimensions 2.7 cm long  
Weight   
Condition E G P

Photo attached see contact sheets

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

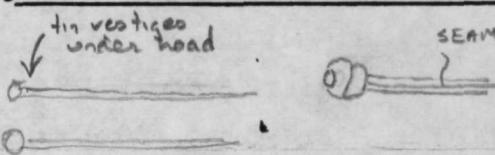
Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priority for treatment:

(3)                    2                    1                    0  
(high)                (medium)            (low)            (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray

Other

Dates      Treatment Record

4-13-87      The artifact was cleaned mechanically using glass brush brighten.  
No formic acid treatment of the

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24hrs. in a solution of 3% Benzotriazole (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of Incretac (acrylic copolymer in toluene w/ BTA) after passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 25-27

X

4-17-87

contact sheet 3, frame 10-12

X

ARTIFACT SHEET  
AND TREATMENT RECORD

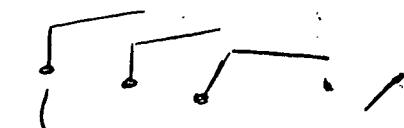
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B5 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1234

Description three straight pins; one straight pin fragment Dimensions c. 2 cm long  
all apparently tinned Weight   
Condition E  G  P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (                  )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:



heads are all wrapped   
tinning evident under head + at tips

Priority for treatment: (3) 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

re-deposited copper on shafts indicate acid soil? Tinning attacked esp.

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using glass brush, scalpel.  
No formic acid used because of tinning.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.

3-13-87      The artifact was removed, air dried, and given a protective coating of Incoladac (acrylate methacrylate copolymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot mended wire brush intensive wash, cold bleached glass brush de-watered (solvent) filled air abrasive/sand blast oven dried consolidated electrolytic reduction inhibitor special support chemical cleaning coating silica gel ultrasonic reshaped biocideDates      PhotographsBefore treatingAfter treating

3-5-87 contact sheet 2, frame 28-30

X

4-17-87 contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B6 Date treatment started 4-13-87  
Artifact type P Date completed 4-15-87  
Date of recovery \_\_\_\_\_ Conservator K. Singley  
Site Log Entry \_\_\_\_\_  
Provenience 18BA282 - 1235

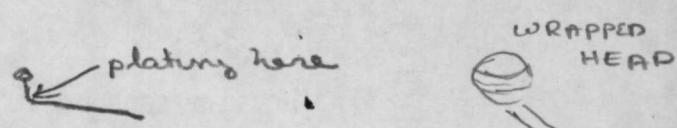
Description bent straight pin - remnants of plating Dimensions 2.3cm  
Weight \_\_\_\_\_  
Condition  G P

Photo attached \_\_\_\_\_  
see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



Priority for treatment:  
3 (high)      2 (medium)      1 (low)      0 (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

4-13-87      The artifact was cleaned mechanically using Scalpel + light glass brush  
No formic acid used because of ton

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $> 10^{-2}$  lbs/in<sup>2</sup>) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of INCRAVAC (acrylic copolymer in toluene, w/ BTA) after passing thru methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 75-79	X	
4-17-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B7 Date treatment started 4-15-87  
Artifact type  Date completed 4-18-87  
Date of recovery 18BA 282-1208 Conservator K. Singley  
Site Log Entry: \_\_\_\_\_  
Provenience \_\_\_\_\_

Description nail (fork - lang?) Dimensions 3.5 cm  
Weight \_\_\_\_\_ Condition E (G) P

Photo attached see contact sheets copper/brass/bronze bone, ivory foodstuff  
lead/tin/pewter cork glass  
iron/steel wood rubber  
gold cloth ceramic  
silver leather stone, clay  
mineral rope other  
gem paper ( )

Post excavation history:

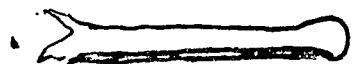
processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing \_\_\_\_\_

Location:



Priority for treatment:

(3)  
(high)

2  
(medium)

1  
(low)

0  
(none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

DatesTreatment Record

4-15-87

The artifact was cleaned mechanically using scalpel + vibratool.

4-15-87  
thru  
4-17-87

The artifact was boiled in changes of deionized water. The water was changed at least 8x per day.

4-17-87  
thru  
4-18-87~~The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $1 \text{ lb/in}^2$ ) for hrs. in a solution of deionized ethanol overnight.~~  
~~The artifact was removed, air dried, and given a protective coating of 10% Acryloid B72 in toluene.~~Treatment Summary scalpel, pick wire brush glass brush air abrasive/sand blast electrolytic reduction chemical cleaning ultrasonic vibratool intensive wash, hot intensive wash, cold de-watered (solvent) oven dried inhibitor coating reshaped mended bleached filled consolidated special support silica gel biocideDatesPhotographs

3-5-87

contact sheet 2, frame 31-33

Before treating

X

After treating

4-18-87

contact sheet 3, frame 6-9

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B8 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1208

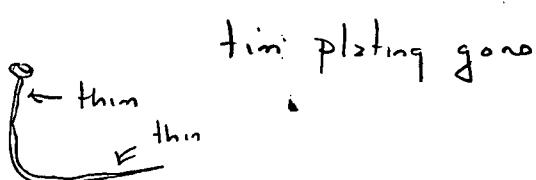
Description straight pin - thin plated copper? Dimensions 2.4 cm long  
Weight   
Condition E G P

Photo attached         
see contact sheets       

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( <u>                </u> )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing       

Location:  
        
      



Priority for treatment:  
3      2      1      0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

v. acid soil - tanning largely gone - redeposited soil

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using glass brush + scalpel.  
No chemicals used.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.

3-15-87      The artifact was removed, air dried, and given a protective coating of lucite (acrylic methacrylate copolymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 28-30

X

4-17-87

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 89 Date treatment started 3-11-87  
 Artifact type  Date completed 3-13-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA282 1208

---

Description button - brass plated w/ white metal Dimensions 1.3 cm diam  
 Weight   
 Condition E G P

---

Photo attached see contact sheets

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input checked="" type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	<u>(cotton fiber)</u>

---

Post excavation history:

processed; bagged in plastic

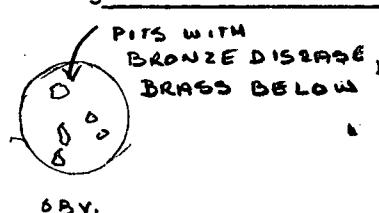
Recording:

Photographs see contact sheets

Drawing:

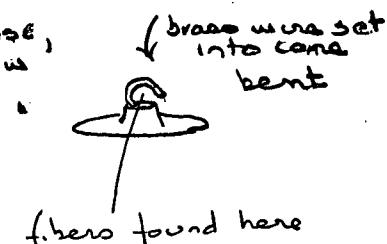
---

Location:



PITS WITH BRONZE DISEASE,  
BRASS BELOW

6 B.V.



Priority for treatment:

<u>3</u>	2	1	0
(high)	(medium)	(low)	(none)

---

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Fibers found on underside of loop + sample taken. Probable cotton

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using glass brush + scalpel.  
Sample fibers taken.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-13-87      The artifact was removed, air dried, and given a protective coating of Incralac (acrylate methacrylate copolymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input type="checkbox"/> inhibitor                       | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input type="checkbox"/> coating                         | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 28-30	X	
4-17-87	contact sheet 3, frame 13-15		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 610 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry:   
Provenience 18BA 282-1201

Description bent straight gun w/ turn Dimensions 1.4 cm  
Weight   
Condition E G (P)

Photo attached see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priorty for treatment:

(3)  
(high)

2  
(medium)

1  
(low)

0  
(none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates    Treatment Record

4-13-87 The artifact was cleaned mechanically using glass brush.  
No chemicals used because of time.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $90\text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

4-15-87 The artifact was removed, air dried, and given a protective coating of Inralac (acrylic copolymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> scalpel, pick           | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush              | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush  | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction  | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning       | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic              | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 25-27	X	
4-18-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B-11 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282 - 1a03

Description fragment of straight pin Dimensions 0.8 cm long  
Weight   
Condition E G (P)

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (                )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:

fragments  
of  
head wrapped

Priority for treatment: 3 2 1 0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Bios disease evident.

very mineralized, probably tin rod originally

Dates      Treatment Record

3-11-87

The artifact was cleaned mechanically using scalpel + glass brush.  
Fragmented in cleaning + joined with cyanoacrylate ('Crazy Glue')  
just below head. No chemicals used because of probable tin -

3-11-87

The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $20\text{ lbs/in}^2$ ) for 24 hrs.  
in a solution of 3% Benzotriazole (BTA) in methanol.

3-13-87

The artifact was removed, air dried, and given a protective coating of  
Inralac (acrylic methacrylate copolymer in toluene w/ BTA added)  
after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot mended wire brush intensive wash, cold bleached glass brush de-watered (solvent) filled air abrasive/sand blast oven dried consolidated electrolytic reduction inhibitor special support chemical cleaning coating silica gel ultrasonic reshaped biocideDatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 28-30

X

4-17-87

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B12 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1203

Description paled button - brass w/ white metal Dimensions 1.5cm  
Weight   
Condition E G P

Photo attached         
see contact sheets       

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	(                )

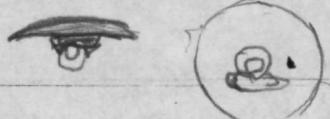
Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



REV.

Priority for treatment:

3      (2)      1      0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Magnet  
Probe  
Magnification

## Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates      Treatment Record

4-13-87      The artifact was cleaned mechanically using glass brush + scraped

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $30 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.  
The artifact was removed, air dried, and given a protective coating of Imralac (acrylic copolymer in toluene) after passing through methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 25-27

X

4-17-87

contact sheet 3, frame 10-12

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B13 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18 BA282 - 1203

Description plated bottom - white metal Dimensions 1.3 cm  
 Weight   
 Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter "white"  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  (                )

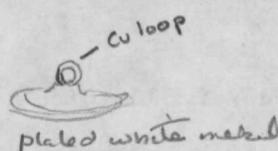
Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priority for treatment:

(3)      2      1      0  
(high)    (medium)    (low)    (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

 Magnet

X-Ray \_\_\_\_\_

 Probe

Other \_\_\_\_\_

 MagnificationDates      Treatment Record

4-13-87    The artifact was cleaned mechanically using glass brush + scalpel

4-14-87    The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% BTA (benzotriazole) in methanol.

4-15-87    The artifact was removed, air dried, and given a protective coating of Ivaralac (acrylic copolymer, w/ BTA added, in toluene) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 25-27	X	
4-17-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B14 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282-1203

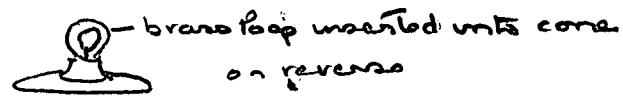
Description button - copper/brass plated w/ white metal Dimensions 1.3 cm diam  
Weight   
Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (                )

Post excavation history:

processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:



Priority for treatment:      3      (2)      1      0  
(high)      (medium)      (low)      (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using scalpel + glass brush.  
                 15% formic acid also used to remove corrosion, especially on loop.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

3-13-87      The artifact was removed, air dried, and given a protective coating of Inralac (acrylate methacrylate co-polymer w/ BTA added) in toluene after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 1, frame 28-30

X

4-17

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B15 Date treatment started 4-15-87  
Artifact type  Date completed 4-18-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282-1202

Description large nail Dimensions 7cm long  
Weight   
Condition E  G  P

Photo attached  copper/brass/bronze  bone, ivory  foodstuff   
see contact sheets lead/tin/pewter  cork  glass   
 iron/steel  wood  rubber   
 gold  cloth  ceramic   
 silver  leather  stone, clay   
 mineral  rope  other   
 gem  paper  (  )

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

Priority for treatment:

3

(2)

1

0

(high)

(medium)

(low)

(none)

Analysis/ExaminationMagnetProbeMagnificationSpot tests

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray

Other

Dates      Treatment Record

- 4-15-87      The artifact was cleaned mechanically using scalpel, vibratool, chisel.
- 4-15-87      The artifact was intermittently washed in changes of deionized water thru to remove chlorides. Wash water was changed at least 8 x / day.
- 4-17-87
- 4-17-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $1 \text{ lb/in}^2$ ) for hrs.
- 4-18-87      in a solution of de-watered overnight in ethanol  
The artifact was removed, air dried, and given a protective coating of 10% Acryloid B-72 on tolune.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input checked="" type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input checked="" type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input type="checkbox"/> glass brush              | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input checked="" type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input checked="" type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |
| <input checked="" type="checkbox"/> v. brotector  |  |  |

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 31-33

X

4-18-87

contact sheet 3, frame 6-9

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B16 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282 1152

Description buckle part Dimensions 2.3 cm long  
 Weight   
 Condition E  G P

Photo attached         
see contact sheets  copper/brass/bronze      bone, ivory      foodstuff  
 lead/tin/pewter      cork      glass  
 iron/steel      wood      rubber  
 gold      cloth      ceramic  
 silver      leather      stone, clay  
 mineral      rope      other  
 gem      paper      ( )

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing 

Location:

Priority for treatment:

3

(2)

1

0

(high)

(medium)

(low)

(none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Acidic soil caused redeposited copper layer?

DatesTreatment Record

3-11-87

The artifact was cleaned mechanically using scalpel + glass brush.  
15% formic acid also used.

3-11-87

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $\geq 10^{-2}$  lbs/in<sup>2</sup>) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

3-13-87

The artifact was removed, air dried, and given a protective coating of Incolac (acrylate methacrylate copolymer with BTA added) in toluene after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 28-30

X

4-17-87

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number b17 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 -1162

Description penny Dimensions 2.8 cm diameter  
Weight   
Condition E G P

Photo attached see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history:

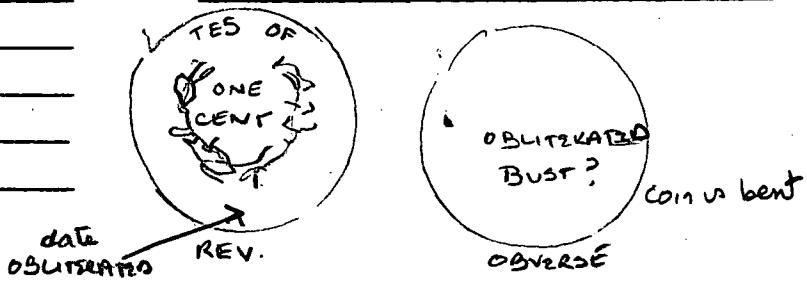
processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:



Priority for treatment:

3      (high)      2      (medium)      1      (low)      0      (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

- 4-13-87      The artifact was cleaned mechanically using glass brush. 15% formic acid also used to remove light corrosion.
- 4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% BTA (benzotriazole) in methanol.
- 4-15-87      The artifact was removed, air dried, and given a protective coating of Incralac (acrylic copolymer in toluene) after passing through methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> scalpel, pick                | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
4-5-87	contact sheet 1, frame 25-27	X	
4-11-87	contact sheet 2, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 818 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1162

Description plated brass button - white metal  
on brass Dimensions 2.4 cm diam.  
Weight   
Condition E (G) P

Photo attached see contact sheets

<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

Post excavation history:

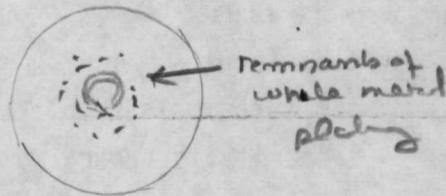
processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:



Priority for treatment:

3            2            (1)            0  
(high)      (medium)     (low)      (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates    Treatment Record

4-13-87      The artifact was cleaned mechanically using glass brush.  
Most of the plating was removed in cleaning, as it had  
formed w/ the client was very loosely held.

4-14-87      The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $20\text{ lbs/in}^2$ ) for 24 hrs.  
in a solution of 3% Benzotriazole (BTA) in methanol.

4-15-87      The artifact was removed, air dried, and given a protective coating of  
Incratac (acrylic copolymer in toluene w/ BTA added) after passing through  
methanol.

Treatment Summary

<u>scalpel, pick</u>	<u>intensive wash, hot</u>	<u>mended</u>
<u>wire brush</u>	<u>intensive wash, cold</u>	<u>bleached</u>
<u>✓glass brush</u>	<u>✓de-watered (solvent)</u>	<u>filled</u>
<u>air abrasive/sand blast</u>	<u>oven dried</u>	<u>consolidated</u>
<u>electrolytic reduction</u>	<u>✓inhibitor</u>	<u>special support</u>
<u>chemical cleaning</u>	<u>✓coating</u>	<u>silica gel</u>
<u>ultrasonic</u>	<u>reshaped</u>	<u>biocide</u>

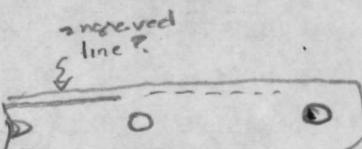
<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 25-27	X	
4-18-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B19 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1166

Description bag, gun mount? Dimensions 5.3 cm long  
 Weight   
 Condition E  G P

Photo attached         copper/brass/bronze        bone, ivory        foodstuff  
see contact sheets         lead/tin/pewter        cork        glass  
       iron/steel        wood        rubber  
       gold        cloth        ceramic  
       silver        leather        stone, clay  
       mineral        rope        other  
       gem        paper        (                  )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing  


Location:

Priority for treatment:      3      2      1      0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates    Treatment Record

- 4-13-87    The artifact was cleaned mechanically using scalpel + glass brush.
- 4-14-87    The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $50\text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.
- 4-15-87    The artifact was removed, air dried, and given a protective coating of Icaraluc (acrylic copolymer in toluene w/ BTA) after passing through methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 25-01	X	
4-17-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 320 Date treatment started March 11, 1987  
Artifact type  Date completed March 13, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1167

Description brass tack Dimensions 0.8 cm diameter  
Weight \_\_\_\_\_  
Condition E G  P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: processed; bagged in plastic Recording: \_\_\_\_\_  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location: \_\_\_\_\_

base of shank is squared  
Shank is missing

Priority for treatment: 3  (high) 2  (medium) 1  (low) 0  (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Probe

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnification

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using a scalpel + glass brush.  
15% formic acid used to remove corrosion products also.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.  
in a solution of 3% benzotriazole (BTA) in methanol

3-13-87      The artifact was removed, air dried, and given a protective coating of  
Incolac in toluene (acrylate methacrylate copolymer w/ BTA added) after passing  
through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 1, frame 28-30

X

4-15-87

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number B21 Date treatment started 3-11-87  
 Artifact type  Date completed 3-13-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 185A282-1167

---

Description brass button w/ white metal plating Dimensions 1.5cm  
 Weight   
 Condition E  G  P

---

Photo attached <u>      </u>	<input checked="" type="checkbox"/> copper/brass/bronze	<u>      </u> bone, ivory	<u>      </u> foodstuff
see contact sheets	<input checked="" type="checkbox"/> lead/tin/pewter	<u>      </u> cork	<u>      </u> glass
	<u>      </u> iron/steel	<u>      </u> wood	<u>      </u> rubber
	<u>      </u> gold	<u>      </u> cloth	<u>      </u> ceramic
	<u>      </u> silver	<u>      </u> leather	<u>      </u> stone, clay
	<u>      </u> mineral	<u>      </u> rope	<u>      </u> other
	<u>      </u> gem	<u>      </u> paper	( <u>      </u> )

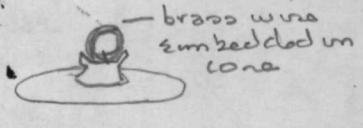
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Post excavation history:  
processed; bagged in plastic Recording:  
 Photographs see contact sheets  
 Drawing:



GOOD AREA  
OF PLATING

OBU.



EDGES  
DETAIL

brass wire  
wrapped around  
cone

---

Location:

Priority for treatment: 3 2 1 0  
 (high) (medium) (low) (none)

---

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using scalpel + glass brush.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.  
3-13-87      The artifact was removed, air dried, and given a protective coating of Incolac (acrylate methacrylate copolymers w/ BTA added) in toluene after passing through methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 28-30	X	
4-17-87	contact sheet 3, frame 13-15		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B22 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282-1167

Description plated copper bottom - brass w/ white metal Dimensions 1.3 cm  
Weight   
Condition E G P

Photo attached        see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



REV.



OBV.

*patches of  
white metal plating*

Location:

Priority for treatment:

3                  2                  (1)                  0  
(high)              (medium)              (low)              (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

MagnificationDates      Treatment Record

4-13-87      The artifact was cleaned mechanically using glass brush. 15% formic acid applied by swab.

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol (BTA). The artifact was removed, air dried, and given a protective coating of Incralac (acrylic copolymer w/ BTA added, in toluene) after passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 25-27

X

4-17-87

contact sheet 3, frame 10-12

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number b23 Date treatment started 4-13-87  
 Artifact type  Date completed 4-15-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA 282 - 1146

Description brass/copper button plated w/ white metal Dimensions 1.6 cm diam  
 Weight   
 Condition E G (P)

Photo attached see contact sheets ✓ copper/brass/bronze      bone, ivory      foodstuff  
 ✓ lead/tin/pewter      cork      glass  
 iron/steel      wood      rubber  
 gold      cloth      ceramic  
 silver      leather      stone, clay  
 mineral      rope      other  
 gem      paper      ( )

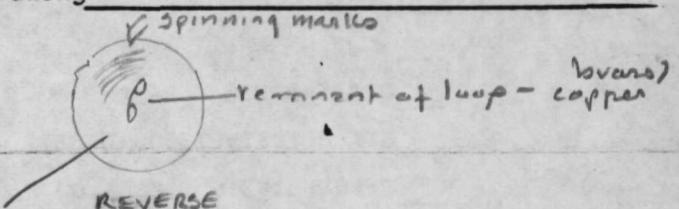
Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing



Location:

DEGRADED  
PLATING w/  
BRONZE DISEASE IN PITS BELOW

Priority for treatment:

3      2      1      0  
(high)    (medium)    (low)    (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

MagnificationDates      Treatment Record

4-13-87      The artifact was cleaned mechanically using glass brush & scalpel.  
15% formic acid used to remove loose connection.

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20\text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

4-15-87      The artifact was removed, air dried, and given a protective coating of Inralac (acrylic copolymer in toluene w/ BTA added) after passing thru methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 25-27

X

4-17-87

contact sheet 3, frame 10-12

X

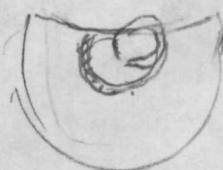
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B24 Date treatment started 4-13-87  
Artifact type  Date completed 4-15-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1146

Description button fragment - copper/brass plated w/  
white metal Dimensions   
Weight   
Condition E  G P

Photo attached   
see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing   
Location:   
bronze discace under  
plating on pto

Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_  
Other \_\_\_\_\_Dates      Treatment Record

4-13-87      The artifact was cleaned mechanically using scalpel + glass brush. 15% formic acid applied by swab to remove carbonate corrosion.

4-14-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% BTA (benzotriazole) in methanol. The artifact was removed, air dried, and given a protective coating of Incrilac (acrylic copolymer w/ BTA added, in toluene) after passing through methanol.

Treatment Summary

- |   |   |                 |
|---|---|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | intensive wash, hot                           | mended          |
| <input type="checkbox"/> wire brush                   | intensive wash, cold                          | bleached        |
| <input checked="" type="checkbox"/> glass brush       | de-watered (solvent)                          | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | oven dried                                    | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating   | silica gel      |
| <input type="checkbox"/> ultrasonic                   | reshaped                                      | biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 25-27	X	
4-17-87	contact sheet 3, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

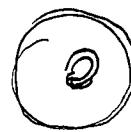
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 825 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry:   
Provenience 18BA282 - STP 695

Description brass button plated w/ white metal Dimensions 1.6 cm diam.  
Weight   
Condition E  G  P

Photo attached   copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:



No cone/collar

Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates      Treatment Record

3-11-87      The artifact was cleaned mechanically using scalpel + glass brush.

3-11-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.

3-13-87      in a solution of 3% Benzotriazole (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of Ineralac (acrylate methacrylate in toluene w/ BTA added) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot mended wire brush intensive wash, cold bleached glass brush de-watered (solvent) filled air abrasive/sand blast oven dried consolidated electrolytic reduction inhibitor special support chemical cleaning coating silica gel ultrasonic reshaped biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 28-30	X	
4-17-87	contact sheet 3, frame 13-15		X

ARTIFACT SHEET  
AND TREATMENT RECORD

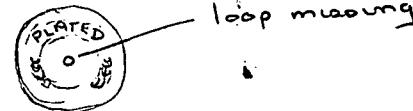
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number B-26 Date treatment started 3-11-87  
Artifact type  Date completed 3-13-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282 - 1203

Description Brass button Dimensions 1.5 cm diam  
Weight   
Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (            )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

MAY HAVE BEEN BURNED / CHARRED?

Dates      Treatment Record

3-11-87

The artifact was cleaned mechanically using scalpel + glass brush.  
No chemicals used.

3-11-87

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-13-87

The artifact was removed, air dried, and given a protective coating of Inralac (acrylate methacrylate copolymer in toluene w/ BTA added) after passing through methanol.

Treatment Summaryx scalpel, pick

intensive wash, hot

mended

       wire brush

intensive wash, cold

bleached

x glass brush

x de-watered (solvent)

filled

       air abrasive/sand blast

oven dried

consolidated

       electrolytic reduction

x inhibitor

special support

       chemical cleaning

x coating

silica gel

       ultrasonic

reshaped

biocide

DatesPhotographsBefore treatingAfter treating

3-5-87

contact sheet 2, frame 28-30

X

4-17-87

contact sheet 3, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number B21 Date treatment started 3-11-87  
 Artifact type  Date completed 3-13-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA 282 - 1153

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Description brass button plated w/ silver (?) Dimensions 1.8 cm diam  
 Weight \_\_\_\_\_  
 Condition E  G  P

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Photo attached	<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
see contact sheets	<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
	<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
	<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
	<input checked="" type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
	<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
	<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

---

Post excavation history:

processed; bagged in plastic

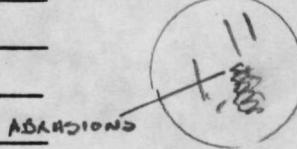
Recording: \_\_\_\_\_

Photographs see contact sheets

Drawing \_\_\_\_\_

---

Location: \_\_\_\_\_

  
ABRAHAMS

  
REV.

PLATING REMNANTS AROUND LOOP BASE

---

Priority for treatment:

<u>3</u>	2	1	0
(high)	(medium)	(low)	(none)

---

Analysis/Examination

Magnet  
Probe  
Magnification

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Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

3-11-81      The artifact was cleaned mechanically using scalpel + glass brush.  
15% formic acid also used

3-11-81      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.  
3-13-81      The artifact was removed, air dried, and given a protective coating of Incralac (acrylate methacrylate copolymer w/ BTA) in toluene after passing through methanol.

---

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick     | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor            | <input type="checkbox"/> special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
3-5-87	contact sheet 2, frame 28-30	X	
4-17-87	contact sheet 3, frame 13-15		X

821 → 894

907 → 911

934 → 939

945 → 947

959 → 980

996 → 1000

1011 → 1016

1028.

## F. 10

## F. 10 NE

901	L. 1	7 wn. f.
903	L. 1	<del>2 wh. f.</del>
904	L. 1	
905	L. 1	
906	L. 1	
912	L. 2	2 wn. f. / 2 wh. wn.
913	L. 2	
914	L. 2	
915	L. 2	
916	L. 2	
924	L. 3	1 wh. wn.
929	L. 4	
940	L. 5	1 wn. f.
948	L. 6	3 wn. f.
958	L. 6	
981	L. 2	1 wn. f.
984	L. 4	1 wn. f.
995	L. 5	2 wn. f.
1017	L. 7	1 wn. f.

## F. 10 NW

919	L. 1	
920	"	
921	"	
922	"	
923	"	
953	L. 2	
982	L. 2	
983	L. 3	1 wn. f.
988	L. 2	1 wn. f.
990	L. 4	
1005	L. 5	
1010	L. 6	
1027	L. 7	

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 3 Date treatment started 2-19-87  
Artifact type \_\_\_\_\_ Date completed 2-25-87  
Date of recovery \_\_\_\_\_ Conservator K. Singley  
Site Log Entry \_\_\_\_\_  
Provenience 18BA 282 1138

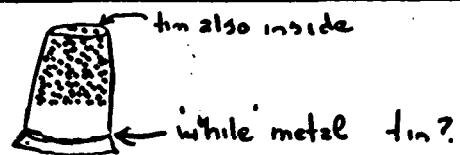
Description BRASS THIMBLE ; ENCRUSTED DIRT ON INSIDE Dimensions 1.8 cm  
(see over) Weight \_\_\_\_\_  
Condition  E G P

Photo attached \_\_\_\_\_  
see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input checked="" type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	(seeds inside?)

Post excavation history: Recording:  
processed; bagged in plastic

Photographs see contact sheets  
Drawing \_\_\_\_\_



Location:

Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

 Magnet

X-Ray \_\_\_\_\_

 Probe

Other \_\_\_\_\_

 Magnification

*ENCRUSTATION INSIDE, YIELDED COTTON FIBER + SEEDS -- BOXED + KEPT.  
THAD BEEN PLATED WITH WHITE METAL - TIN ALLOY? NOW MOSTLY LOST, EXCEPT FOR  
BAND ON EXTERIOR BASE + INSIDE.*

Dates      Treatment Record

2-19      The artifact was cleaned mechanically using SCALPEL + GLASS FIBER CRUSH  
2-19      The artifact was cleaned chemically using 15% formic acid

2-24 thru  
2-25

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Inralac (acrylate methacrylate in toluene) after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	intensive wash, hot	mended
<input type="checkbox"/> wire brush	intensive wash, cold	bleached
<input checked="" type="checkbox"/> glass brush	de-watered (solvent)	filled
<input type="checkbox"/> air abrasive/sand blast	oven dried	consolidated
<input type="checkbox"/> electrolytic reduction	✓ inhibitor	special support
<input checked="" type="checkbox"/> chemical cleaning	✓ coating	silica gel
<input type="checkbox"/> ultrasonic	reshaped	biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 10-14

X

3-2-87

contact sheet 2, frame 1-8-9

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 2 Date treatment started 2-19-81  
Artifact type Date completed 2-27-87  
Date of recovery Conservator K. Singley  
Site Log Entry  
Provenience 18BA 282 - 1234

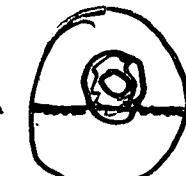
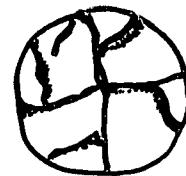
Description 6.4 oz. Dimensions 2 cm diam.  
Weight \_\_\_\_\_  
Condition E G P

Photo attached \_\_\_\_\_  
see contact sheets

<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



obj.

Priority for treatment: (3) 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Magnet

Probe

Magnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

### Dates      Treatment Record

2-19 The artifact was cleaned mechanically using glass brush + scalpel.  
10% EDTA (disodium salt) was used to remove Pb carbonate encrustation.  
Bottom rinsed  $\frac{1}{2}$  hr. in deionized water afterwards. V. compact surface  
that responded well to glass brush burnishing.

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~ $1\text{bs/in}^2$ ) for hrs. in a solution of Renaissance (microcrystalline) wax in naphtha after elevating in methanol.

### Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick     | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input type="checkbox"/> inhibitor                       | <input type="checkbox"/> special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 5-9	X	
3-2-87	contact sheet 2, frame 4-6		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 4 Date treatment started 2-14-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1057

Description BRASS THIMBLE Dimensions 16 cm  
Weight   
Condition E  G  P

Photo attached   
see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history: Recording:  
processed; bagged in plastic

Photographs see contact sheets  
Drawing



Location:

Priority for treatment: 3 (high)    2 (medium)    1 (low)    0 (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

 Magnet

X-Ray \_\_\_\_\_

 Probe

Other \_\_\_\_\_

 Magnification

The dimples of the thimble are v. corroded. 'Original' surface exists in some areas.  
No evidence of plating or tinning.

Dates      Treatment Record

2-19

The artifact was cleaned mechanically using scalpel, fiberglass brushes.  
15% formic acid used also to remove corrosion.

2-24 thru  
2-25-87

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried and given a protective coating of Ineralac (acrylic methacrylic co-polymer, <sup>w/ BPA</sup> in toluene) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 10-14

X

3-2-87

contact sheet 2, frame 1-8-9

X

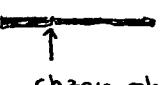
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 5 Date treatment started Feb. 14, 1987  
Artifact type  Date completed March 2, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282-1208

Description clock part? fine tool steel w/ good original surface. High carbon [Co]. Dimensions 2.1 cm  
Weight   
Condition (E) G P

Photo attached        copper/brass/bronze        bone, ivory        foodstuff  
see contact sheets        lead/tin/pewter        cork        glass  
✓ iron/steel        wood        rubber  
       gold        cloth        ceramic  
       silver        leather        stone, clay  
       mineral        rope        other  
       gem        paper        ( )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:   
  
change of dimension, surface

Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates      Treatment Record

- Feb. 19, 1987 The artifact was cleaned mechanically using scalpel + glass brush.
- Feb. 20-28 The artifact was hot washed to remove Cl<sup>-</sup> by boiling daily in changes of deionized water. The wash water was changed 6-8x/day and each morning was monitored with a TDS meter for the level of remaining dissolved solids. In the last four days, the TDS readings fell to 5.2, 3.3, 3.6, 1.4 ppm -- indicating a low & constant level of solids release (as NaCl).
- Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $\sim 1\text{ lb/in}^2$ ) for 4 hrs. in a solution of Rust Eater, a commercial product containing phosphoric acid.
- March 2 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying over silica gel (70% RH) overnight.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame	X	
	contact sheet 2, frame		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 6 Date treatment started 2-22-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282-1235

Description tinned brass straight pin Dimensions 2.3 cm.  
Weight   
Condition E  G  P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (                )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
 Drawing wrapped head

Location:

Priority for treatment: 3      2      1      0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates    Treatment Record

2-22-87   The artifact was cleaned mechanically using scalpel & glass brush.  
No chemicals used, because of the presence of tin.

2-24 thru  
2-25-87   The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $50 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Incretac (acrylate methacrylate w/ BTA added in toluene) after passing through methanol.

Treatment Summary

- |   |   |                 |
|---|---|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick | intensive wash, hot                           | mended          |
| <input type="checkbox"/> wire brush               | intensive wash, cold                          | bleached        |
| <input checked="" type="checkbox"/> glass brush   | de-watered (solvent)                          | filled          |
| <input type="checkbox"/> air abrasive/sand blast  | oven dried                                    | consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor | special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating   | silica gel      |
| <input type="checkbox"/> ultrasonic               | reshaped                                      | biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 20-24	X	
3-2-87	contact sheet 2, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number #7 Date treatment started 2-21-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1261

Description tinned brass gun Dimensions 3.2cm  
Weight \_\_\_\_\_  
Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: processed; bagged in plastic Recording: \_\_\_\_\_  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location: \_\_\_\_\_



Priority for treatment: (3) 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

The finding is very deteriorated & evident just under wrapped lead.

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Dates      Treatment Record

2-21-87      The artifact was cleaned mechanically using scalpel + glass brush.  
No chemicals used.

2-24 thru  
2-25-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of Icerlac (acrylic methacrylate w/ BMA added in toluene) after passing through methanol.

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Treatment Summary

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 28-24

X

3-2

contact sheet 2, frame 10-12

X

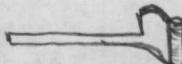
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 8 Date treatment started 2-22-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282-1150

Description brass - clock part? hinge fragment? Dimensions 2.3 cm  
Weight \_\_\_\_\_  
Condition E G P

Photo attached         copper/brass/bronze        bone, ivory        foodstuff  
see contact sheets  lead/tin/pewter        cork        glass  
 iron/steel        wood        rubber  
 gold        cloth        ceramic  
 silver        leather        stone, clay  
 mineral        rope        other  
 gem        paper        ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing \_\_\_\_\_

Location: 

Priority for treatment: (3) 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates      Treatment Record

2-22-87      The artifact was cleaned mechanically using scalpel + glass brush. Also, 15% formic acid used to remove corrosion.

2-24 thru  
2-25-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $\infty$  lbs/in<sup>2</sup>) for 24 hrs. in a solution of 3% Benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Ineralac (acrylate methacrylate w/ BTA added in toluene) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 30-34	X	
3-2-87	contact sheet 2, frame 10-12		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 9 Date treatment started 2-14-87  
Artifact type \_\_\_\_\_ Date completed 2-27-87  
Date of recovery \_\_\_\_\_ Conservator K. Singley  
Site Log Entry \_\_\_\_\_  
Provenience 18BA 282 - 1174

Description Pb washer Dimensions 1.3 cm diam.  
Weight \_\_\_\_\_  
Condition E  G  P

Photo attached \_\_\_\_\_  
see contact sheets

<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Magnet  
Probe  
Magnification  
V. deformed

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

- 2-19-81      The artifact was cleaned mechanically using glass brush & scalpel. 10% EDTA (disodium salt) was used to remove carbonate encrustation; The washer was runned 1/2 hr. in deionized water afterwards & air dried.
- 2-27      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~ lbs/in<sup>2</sup>) for ~ hrs. in a solution of ~. The artifact was removed, air dried, and given a protective coating of Remarance wax (microcrystalline) in naptha after dewatering 5 minutes in methanol.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick     | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input type="checkbox"/> inhibitor                       | <input type="checkbox"/> special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 5-9	X	
3-2-81	contact sheet 2, frame 4-6		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 10 Date treatment started 2-22-87  
 Artifact type  Date completed 2-25-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA 282 - 1168

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Description COIN - copper Dimensions 2.4 cm diam.  
 Weight \_\_\_\_\_  
 Condition E  G P

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Photo attached <u>      </u>	<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
see contact sheets	<input type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
	<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
	<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
	<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
	<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
	<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

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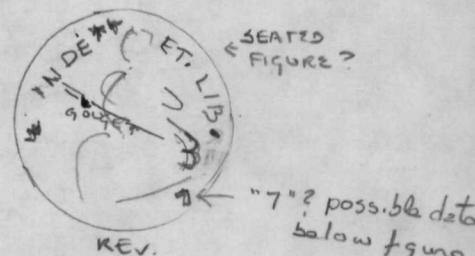
Post excavation history:

processed; bagged in plastic Recording: \_\_\_\_\_

Photographs see contact sheets

Drawing: \_\_\_\_\_

Location:



Priority for treatment:

<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
(high)	(medium)	(low)	(none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

The coin has a profile facing L on obverse & a seated figure on reverse. Inscription quite clear, although date (below figure on Rev) is obscured. Gouged on both sides - for splitting?

Dates      Treatment Record

2-22-87      The artifact was cleaned mechanically using glass brush & scalpel.  
No chemicals used.

2-24 thru 2-25-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Incrac (acrylic methacrylate copolymer w/ BTA added) in toluene after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	<input type="checkbox"/> intensive wash, hot	<input type="checkbox"/> mended
<input type="checkbox"/> wire brush	<input type="checkbox"/> intensive wash, cold	<input type="checkbox"/> bleached
<input checked="" type="checkbox"/> glass brush	<input type="checkbox"/> de-watered (solvent)	<input type="checkbox"/> filled
<input type="checkbox"/> air abrasive/sand blast	<input type="checkbox"/> oven dried	<input type="checkbox"/> consolidated
<input type="checkbox"/> electrolytic reduction	<input checked="" type="checkbox"/> inhibitor	<input type="checkbox"/> special support
<input type="checkbox"/> chemical cleaning	<input checked="" type="checkbox"/> coating	<input type="checkbox"/> silica gel
<input type="checkbox"/> ultrasonic	<input type="checkbox"/> reshaped	<input type="checkbox"/> biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 20-24	X	
3-2-87	contact sheet 2, frame 10-12, 16 + 17		X

ARTIFACT SHEET  
AND TREATMENT RECORD

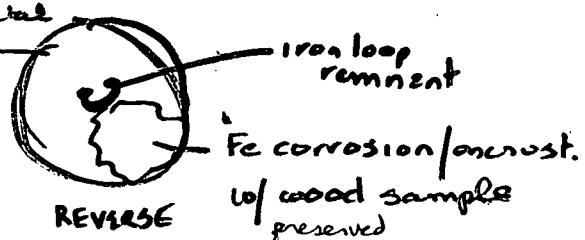
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 11 Date treatment started 2-27-87  
 Artifact type \_\_\_\_\_ Date completed 2-28-87  
 Date of recovery \_\_\_\_\_ Conservator K. Singley  
 Site Log Entry \_\_\_\_\_  
 Provenience 18BA 282-1170

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Description button - plated white metal Dimensions 2.4 cm diam.  
 Weight \_\_\_\_\_ Condition E G P

Photo attached see contact sheets       copper/brass/bronze       bone, ivory       foodstuff  
 lead/tin/pewter       cork       glass  
 iron/steel       wood       rubber  
 gold       cloth       ceramic  
 silver       leather       stone, clay  
 mineral       rope       other  
 gem       paper      (wood remains associated)

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Post excavation history:  
processed; bagged in plastic Recording:  
 Photographs see contact sheets  
 Drawing  


Priority for treatment: 3 2 1 0  
 (high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

white metal on white metal base

Plating layer v. loose & grainy. Copper in alloy -- evident from corrosion products.  
Ferrous deposit on rev. contains wood fiber.

Dates      Treatment Record

2-27      The artifact was cleaned mechanically using scalpel &amp; fiber brush.

15% formic acid used to remove loose corrosion.

2-27  
thru  
2-28The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.

The artifact was removed, air dried, and given a protective coating of Ineralac (acrylate/methacrylate co-polymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	intensive wash, hot	mended
<input type="checkbox"/> wire brush	intensive wash, cold	bleached
<input checked="" type="checkbox"/> glass brush	de-watered (solvent)	filled
<input type="checkbox"/> air abrasive/sand blast	oven dried	consolidated
<input type="checkbox"/> electrolytic reduction	<input checked="" type="checkbox"/> inhibitor	special support
<input checked="" type="checkbox"/> chemical cleaning	<input checked="" type="checkbox"/> coating	silica gel
<input type="checkbox"/> ultrasonic	reshaped	biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 25-24

X

3-2-87

contact sheet 2, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

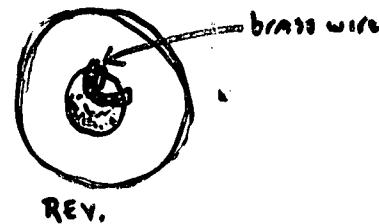
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 12 Date treatment started 2-21-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282/1168

Description button - white metal plated on brass Dimensions 2.5 cm  
Weight   
Condition E  G  P

Photo attached see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3  (2) 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

 Magnet X-Ray Probe Other Magnification

Brown Disease in pits below plating -- indic. brass coze?

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Dates      Treatment Record

2-21      The artifact was cleaned mechanically using glass brush & scalpel  
 15% formic used to clean pits. Loop fragments during cleaning.

2-24      The artifact was treated with a chemical inhibitor to prevent further  
 thru corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.  
 2-25      in a solution of 3% benzotriazoles in methanol.

The artifact was removed, air dried, and given a protective coating of  
 Incralac (acrylate methacrylate copolymer in toluene) after passing through methanol.  
 Loop reattached w/ cyanoacrylate

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Treatment Summary

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> scalpel, pick                | <input type="checkbox"/> intensive wash, hot  | <input checked="" type="checkbox"/> mended |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached          |
| <input checked="" type="checkbox"/> glass brush       | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled            |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated      |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support   |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel        |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide           |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 1-4	X	
3-2-87	contact sheet 2, frame 1-3		X

**ARTIFACT SHEET  
AND TREATMENT RECORD**

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 13 Date treatment started 2-20-87  
 Artifact type  Date completed Aug 25-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA 282 - 1144

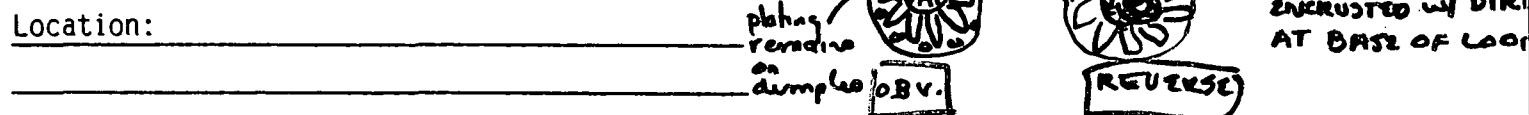
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Description button - brass plated w/ white metal Dimensions 1.3 cm diam.  
 Weight   
 Condition (E) G P

Photo attached <u>      </u>	<input checked="" type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
see contact sheets	<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
	<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
	<input type="checkbox"/> gold	<input checked="" type="checkbox"/> cloth	<input type="checkbox"/> ceramic
	<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
	<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
	<input type="checkbox"/> gem	<input type="checkbox"/> paper	<input type="checkbox"/> (cotton fiber)

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Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
 Drawing



Priority for treatment: (3) 2 1 0  
 (high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Fiber sample removed & housed separately. Remnants of a white metal plating on rated areas of obverse, & on edge & center of reverse.

Dates      Treatment Record

2-21-87      The artifact was cleaned mechanically using scalpel, probe, glass brush. 15% formic acid used v. gently to remove corrosion, but without removing plating.

2-24 thru  
2-25-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Incretac (acrylic methacrylate in toluene w/ BTA added) after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	<input type="checkbox"/> intensive wash, hot	<input type="checkbox"/> mended
<input checked="" type="checkbox"/> wire brush	<input type="checkbox"/> intensive wash, cold	<input type="checkbox"/> bleached
<input checked="" type="checkbox"/> glass brush	<input type="checkbox"/> de-watered (solvent)	<input type="checkbox"/> filled
<input type="checkbox"/> air abrasive/sand blast	<input type="checkbox"/> oven dried	<input type="checkbox"/> consolidated
<input type="checkbox"/> electrolytic reduction	<input checked="" type="checkbox"/> inhibitor	<input type="checkbox"/> special support
<input checked="" type="checkbox"/> chemical cleaning	<input checked="" type="checkbox"/> coating	<input type="checkbox"/> silica gel
<input type="checkbox"/> ultrasonic	<input type="checkbox"/> reshaped	<input type="checkbox"/> biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 1-4	X	
3-2-87	contact sheet 2, frame 1-3		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 14 Date treatment started 2-21-87  
Artifact type \_\_\_\_\_ Date completed 2-25-87  
Date of recovery \_\_\_\_\_ Conservator K. Singley  
Site Log Entry \_\_\_\_\_  
Provenience 18BA 282 - 1137

Description cuff button - silver metal plated onto brass Dimensions 1.2 cm.  
Weight \_\_\_\_\_ Condition (E) G P

Photo attached \_\_\_\_\_  
see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input checked="" type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location: \_\_\_\_\_



Priority for treatment: 3 (high) ② (medium) 1 (low) 0 (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

 Magnet

X-Ray \_\_\_\_\_

 Probe

Other \_\_\_\_\_

 Magnification

Ag plating is very deteriorated + easily disrupted on reverse - evident only at loop base  
Layer brass occurs in between brass + Ag plating

Dates      Treatment Record

2-21-87

The artifact was cleaned mechanically using scalpel + glass brush.  
15% formic acid also applied.

2-24

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.

thru

in a solution of 3% benzotriazole in methanol.

2-25

The artifact was removed, air dried, and given a protective coating of Incrilac (acrylic co-polymer w/ BTA added) after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 1-4

X

3-2-87

contact sheet 2, frame 1-3

X

ARTIFACT SHEET  
AND TREATMENT RECORD

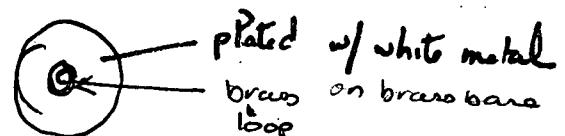
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 15 Date treatment started 2-25-87  
Artifact type  Date completed 2-28-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 1210 (T22 N180 W455)

Description plated button Dimensions 1.3 cm.  
Weight \_\_\_\_\_  
Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



Priority for treatment: 3 (high) ② (medium) 1 (low) 0 (none)

Analysis/Examination

Magnet  
 Probe  
 Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates    Treatment Record

2-26-81      The artifact was cleaned mechanically using scalpel + glass brush.

2-27-81      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.  
2-28-81      The artifact was removed, air dried, and given a protective coating of Incolac (acrylic methacrylate co-polymer in toluene w/ BTA added) after passing through methanol.

Treatment Summary

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 25-29	X	
3-2-87	contact sheet 2, frame 13-15		X

ARTIFACT SHEET  
AND TREATMENT RECORD

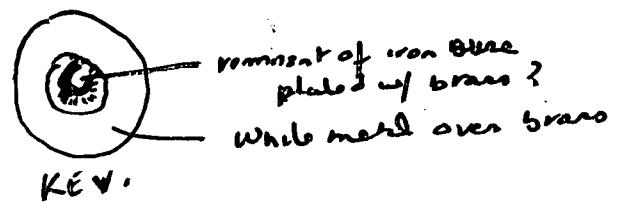
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 16 Date treatment started 2-25-87  
Artifact type  Date completed 2-28-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 1142

Description plated button Dimensions 1.5 cm  
Weight   
Condition E G P

Photo attached   copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)

Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates      Treatment Record

2-25      The artifact was cleaned mechanically using glass brush & scalpel.  
15% formic acid to remove loose corrosion

2-27-87      The artifact was treated with a chemical inhibitor to prevent further  
thru      corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.  
2-28-87      in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of  
Incaslac (acrylate methacrylate in toluene w/ BTA added)  
after passing through methanol.

Treatment Summary

- |   |   |                 |
|---|---|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | intensive wash, hot                           | mended          |
| <input type="checkbox"/> wire brush                   | intensive wash, cold                          | bleached        |
| <input checked="" type="checkbox"/> glass brush       | de-watered (solvent)                          | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | oven dried                                    | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating   | silica gel      |
| <input type="checkbox"/> ultrasonic                   | reshaped                                      | biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 25-29	X	
3-2-87	contact sheet 2, frame 13-15		X

**ARTIFACT SHEET  
AND TREATMENT RECORD**

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 17 Date treatment started 2-20-87  
 Artifact type  Date completed 2-25-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience 18BA 282 - 1138

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Description b. Horn Dimensions 1.5 cm. diam.  
 Weight \_\_\_\_\_  
 Condition E  G  P

---

Photo attached	<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
see contact sheets	<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
	<input checked="" type="checkbox"/>	iron/steel - <sup>Pop</sup> remnant	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
	<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
	<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
	<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
	<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

---

Post excavation history:  
processed; bagged in plastic Recording: \_\_\_\_\_  
 Photographs see contact sheets  
 Drawing \_\_\_\_\_

Location: \_\_\_\_\_

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Priority for treatment: 3 2 1 0  
 (high) (medium) (low) (none)

Analysis/ExaminationMagnet ProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Button is composed of a white metal - (tin? Pb? antimony?) with copper added in alloy  
CAST + SPUN. Wire (Fe) embedded on reverse.

Dates      Treatment Record

2-20-87      The artifact was cleaned mechanically using scalpel, probe, glass brush.  
15% formic acid used to remove green Cu carbonate patches.  
Needs DTA treatment for Cu, corroding selectively

2-24 thru  
2-25-87      The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $\approx 10$  lbs/in<sup>2</sup>) for 24 hrs.  
in a solution of 3% benzofriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of  
IncrPac (acrylate methacrylate in toluene) after passing through methanol.

Treatment Summary

- |   |   |                 |
|---|---|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | intensive wash, hot                           | mended          |
| <input type="checkbox"/> wire brush                   | intensive wash, cold                          | bleached        |
| <input checked="" type="checkbox"/> glass brush       | de-watered (solvent)                          | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | oven dried                                    | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating   | silica gel      |
| <input type="checkbox"/> ultrasonic                   | reshaped                                      | biocide         |

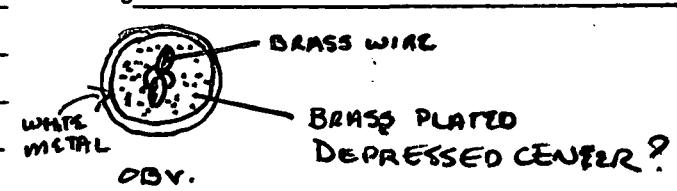
<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 1-4	X	
3-2-87	contact sheet 2, frame 1-3		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 18 Date treatment started 2-21-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry:   
Provenience 18BA 282 - 1143

Description button w/ brass wire Dimensions 1.4 cm. dia.  
Weight \_\_\_\_\_  
Condition E  G  P

Photo attached see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: processed; bagged in plastic Recording:   
Photographs see contact sheets  
Drawing:   
Location:

Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

The obverse may have been brass plated - Cu corrosion products here. Case is white metal  
Spinning liners on reverse.

Dates      Treatment Record

2-21      The artifact was cleaned mechanically using scalpel + glass brush.  
15% formic acid applied by swab on obverse Cu corrosion.

J-24      The artifact was treated with a chemical inhibitor to prevent further  
thru corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.  
J-25      in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of  
Incrilac (acrylate methacrylate copolymer<sup>w/ BTA</sup> in toluene) after passing through methanol.

Treatment Summary

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 1-4

X

3-1-87

contact sheet 2, frame 1-3

X

ARTIFACT SHEET  
AND TREATMENT RECORD

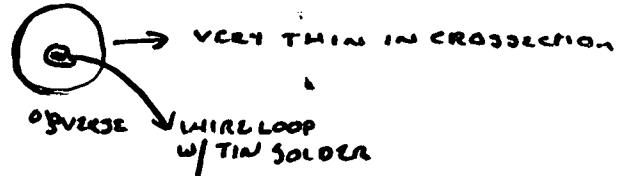
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 19 Date treatment started 2-21-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry 18BA 282  
Provenience 1872

Description brass button Dimensions 1.2 cm  
Weight \_\_\_\_\_  
Condition E  P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification*No evidence of peeling. Loop is soldered?*Dates      Treatment Record

2-21-87      The artifact was cleaned mechanically using scalpel + glass brush.  
15% formic acid was used to remove loose corrosion.

2-24 thru 2-25-87      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of Inralac (acrylic methacrylate copolymer in toluene) after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	<input type="checkbox"/> intensive wash, hot	<input type="checkbox"/> mended
<input checked="" type="checkbox"/> wire brush	<input type="checkbox"/> intensive wash, cold	<input type="checkbox"/> bleached
<input checked="" type="checkbox"/> glass brush	<input type="checkbox"/> de-watered (solvent)	<input type="checkbox"/> filled
<input type="checkbox"/> air abrasive/sand blast	<input type="checkbox"/> oven dried	<input type="checkbox"/> consolidated
<input type="checkbox"/> electrolytic reduction	<input checked="" type="checkbox"/> inhibitor	<input type="checkbox"/> special support
<input checked="" type="checkbox"/> chemical cleaning	<input checked="" type="checkbox"/> coating	<input type="checkbox"/> silica gel
<input type="checkbox"/> ultrasonic	<input type="checkbox"/> reshaped	<input type="checkbox"/> biocide

Dates      PhotographsBefore treatingAfter treating

2-5-87      contact sheet 1, frame 1-4

X

3-3-87      contact sheet 2, frame 1-3

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 20 Date treatment started 2-26-87  
 Artifact type \_\_\_\_\_ Date completed 2-28-87  
 Date of recovery \_\_\_\_\_ Conservator K. Singley  
 Site Log Entry \_\_\_\_\_  
 Provenience 18BA 282 - 1168

---

Description plated button - white metal (on brass?) Dimensions 1.7 cm diam.  
f.b.s around loop Weight \_\_\_\_\_  
 Condition E  G  P

---

Photo attached \_\_\_\_\_  
 see contact sheets

<input checked="" type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input checked="" type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input checked="" type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input checked="" type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	(f.b.s ?)

---

Post excavation history:  
 processed; bagged in plastic

Recording:  
 Photographs see contact sheets  
 Drawing

Location:

---

Priority for treatment: 3 2 1 0  
 (high) (medium) (low) (none)

---

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

white metal alloy contains copper - corrosion products are cuprous  
possible fibers wrapped around loop on reverse are v. deteriorated + mineralized

Dates      Treatment Record

2-27      The artifact was cleaned mechanically using glass brush + scalpel.

15% formic acid used to remove encrustation on reverse. removed any  
after removing possible fiber sample / corroded + mineralized  
Needs BTA due to presence of copper.

2-27 thru

2-28

The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.  
in a solution of 3% benzotriazole in methanol.

The artifact was removed, air dried, and given a protective coating of

IncrPac (acrylate/methacrylate copolymer in toluene w/ BTA added)  
after passing through methanol.

Treatment Summary

<input checked="" type="checkbox"/> scalpel, pick	intensive wash, hot	mended
<input type="checkbox"/> wire brush	intensive wash, cold	bleached
<input checked="" type="checkbox"/> glass brush	de-watered (solvent)	filled
<input type="checkbox"/> air abrasive/sand blast	oven dried	consolidated
<input type="checkbox"/> electrolytic reduction	<input checked="" type="checkbox"/> inhibitor	special support
<input checked="" type="checkbox"/> chemical cleaning	<input checked="" type="checkbox"/> coating	silica gel
<input type="checkbox"/> ultrasonic	reshaped	biocide

Dates      PhotographsBefore treatingAfter treating

2-5-87 contact sheet 1, frame 25-29

X

3-2-87 contact sheet 2, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 21 Date treatment started 2-19-87  
Artifact type  Date completed 2-28-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1174

Description b. Horn Dimensions 1.6 cm.  
Weight \_\_\_\_\_  
Condition E  G P

Photo attached         
see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location: \_\_\_\_\_



brass plated?

Priority for treatment: 3  (high) 2 (medium) 1 (low) 0 (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

The central depression on the reverse appears to have remnants of a copper wash or plating. The rest of the button appears to be a white metal / Britannia metal

Dates      Treatment Record

2-19

The artifact was cleaned mechanically using glass fiber brush & scalpel. 10% EDTA was used to remove white carbonate encrustation found on lead alloys, but solution turned blue/green, indicating presence of Cu. Will need to be treated w/ BTA. Rinsed 1 hr. in deionized water.

2-27 thru  
3-08-87

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol (BTA). The artifact was removed, air dried, and given a protective coating of Icerlac - acrylate methacrylate copolymer in toluene w/ BTA added - after passing through methanol.

Treatment Summary

<u>scalpel, pick</u>	<u>intensive wash, hot</u>	<u>mended</u>
<u>x wire brush</u>	<u>intensive wash, cold</u>	<u>bleached</u>
<u>x glass brush</u>	<u>de-watered (solvent)</u>	<u>filled</u>
<u>air abrasive/sand blast</u>	<u>oven dried</u>	<u>consolidated</u>
<u>electrolytic reduction</u>	<u>x inhibitor</u>	<u>special support</u>
<u>x chemical cleaning</u>	<u>x coating</u>	<u>silica gel</u>
<u>ultrasonic</u>	<u>reshaped</u>	<u>biocide</u>

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 5-9

X

3-2-87

contact sheet 2, frame 4-6

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
 Artifact number 22 Date treatment started 2-27-87  
 Artifact type  Date completed 2-28-87  
 Date of recovery  Conservator K. Singley  
 Site Log Entry   
 Provenience BH282/1201

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Description button - brass w/ white metal plate Dimensions 1.3 cm diam.  
silver Weight   
 Condition E  G  P

---

Photo attached         copper/brass/bronze        bone, ivory        foodstuff  
 see contact sheets  lead/tin/pewter        cork        glass  
 iron/steel        wood        rubber  
 gold        cloth        ceramic  
 silver        leather        stone, clay  
 mineral        rope        other  
 gem        paper        ( )

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Post excavation history:

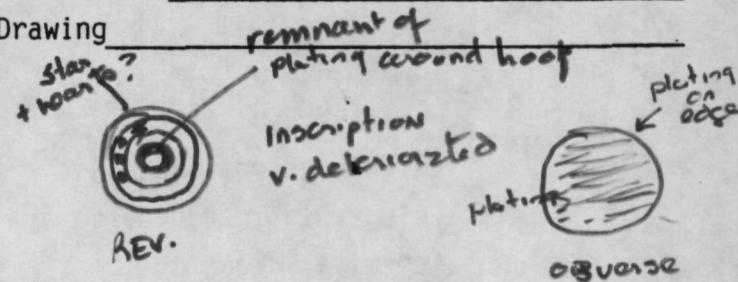
processed; bagged in plastic

Recording:

Photographs see contact sheets

Location:

Drawing



Priority for treatment:

3                      2                      1                      0  
 (high)              (medium)              (low)              (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Silver v. well preserved on obverse / not so well on reverse.

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DatesTreatment Record

2-27

The artifact was cleaned mechanically using scalpel + glass brush  
15% formic acid used to remove copper corrosion product

2-27  
thru 2-28

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried, and given a protective coating of Ineralac (acrylic methacrylate co-polymer in toluene w/ BTA added) after passing through methanol.

---

Treatment Summary

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> scalpel, pick     | <input type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 25-29

X

2-2-87

contact sheet 2, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 23 Date treatment started 2-25-87  
Artifact type  Date completed 2-28-87  
Date of recovery 18BA 282 - 1171 Conservator K. Singley  
Site Log Entry   
Provenience

Description plated button v. det. Dimensions 1.5 cm.  
Weight   
Condition E G P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper (            )

Post excavation history:  
processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing   
Location:   
REV

Priority for treatment: 3 2 1 0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Gilding remnant on reverse.

Dates      Treatment Record

2-25-87

The artifact was cleaned mechanically using ~~scalpel~~ & glass brush.  
No chemicals were used.

2-27 thru

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs.

2-28-1987

in a solution of 3% benzotriazole in methanol

The artifact was removed, air dried, and given a protective coating of Incolac in toluene (acrylic methacrylate copolymer w/ BTA added)  
after passing through methanol.Treatment Summary scalpel, pick intensive wash, hot mended wire brush intensive wash, cold bleached glass brush de-watered (solvent) filled air abrasive/sand blast oven dried consolidated electrolytic reduction inhibitor special support chemical cleaning coating silica gel ultrasonic reshaped biocideDatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 25-29

X

3-2-87

contact sheet 2, frame 13-15

X

ARTIFACT SHEET  
AND TREATMENT RECORD

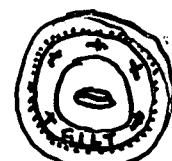
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 24 Date treatment started 2-25-87  
Artifact type Date completed 2-28-87  
Date of recovery 18BA282 - 1209 Conservator K. Singley  
Site Log Entry  
Provenience

Description gilt button Dimensions 1.3 cm diam.  
Weight \_\_\_\_\_  
Condition E  G  P

Photo attached         copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets  lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location:



REV.

Priority for treatment: 3 (high) ② (medium) 1 (low) 0 (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

GLOWING IS GONE. MAY HAVE BEEN BURNED? SURFACE IS CHARRED?

DatesTreatment Record

2-26

The artifact was cleaned mechanically using ~~fiberbrush~~ r scalped.

15% formic acid to remove loose corrosion.

2-27-

2-28/1986 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% Benzotriazole in methanol.

The artifact was removed, air dried, and given a protective coating of Inoplast (acrylate methacrylate co-polymer in toluene) BTA added after passing through methanol.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 25-29

X

3-2-87

contact sheet 2, frame 13-15

X

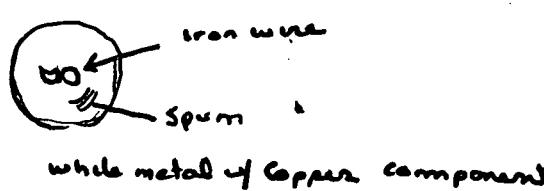
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 25 Date treatment started 2-20-87  
Artifact type  Date completed 2-25-87  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 / 1176

Description bottle Dimensions 1.7cm diam.  
Weight   
Condition E G P

Photo attached see contact sheets  copper/brass/bronze  bone, ivory  foodstuff  
 lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: processed; bagged in plastic Recording:  
Photographs see contact sheets  
Drawing

Location: 

Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

The copper is selectively corroding from the white metal mix.

Dates      Treatment Record

2-20-87 The artifact was cleaned mechanically using scalpel, vibratool, glass brush.  
No chemical cleaning.

2-24 thru  
2-25-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $20 \text{ lbs/in}^2$ ) for 24 hrs. in a solution of 3% benzotriazole in methanol.  
The artifact was removed, air dried and given a protective coating of Incrilac (acrylic/methacrylic copolymer in toluene) after passing through methanol.

Treatment Summary

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> scalpel, pick | <input type="checkbox"/> intensive wash, hot  | <input type="checkbox"/> mended          |
| <input type="checkbox"/> wire brush               | <input type="checkbox"/> intensive wash, cold | <input type="checkbox"/> bleached        |
| <input checked="" type="checkbox"/> glass brush   | <input type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled          |
| <input type="checkbox"/> air abrasive/sand blast  | <input type="checkbox"/> oven dried           | <input type="checkbox"/> consolidated    |
| <input type="checkbox"/> electrolytic reduction   | <input checked="" type="checkbox"/> inhibitor | <input type="checkbox"/> special support |
| <input type="checkbox"/> chemical cleaning        | <input checked="" type="checkbox"/> coating   | <input type="checkbox"/> silica gel      |
| <input type="checkbox"/> ultrasonic               | <input type="checkbox"/> reshaped             | <input type="checkbox"/> biocide         |
| <input checked="" type="checkbox"/> vibratool     |   |  |

Dates      PhotographsBefore treatingAfter treating

2-5-87 contact sheet 1, frame 1-4

X

2-2-87 contact sheet 2, frame 1-3

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 26 Date treatment started Feb. 20, 1987  
Artifact type  Date completed March 2, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA282 - 1210

Description fork fragment Dimensions 5 cm long  
Weight   
Condition E  G  P

Photo attached  copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates      Treatment Record

Feb. 20, 1987 The artifact was cleaned mechanically using mini-chisel, scalpel, wire brush.

Feb. 20 - Feb. 28 The artifact was boiled in changes of deionized water (changed 6x/day) to remove chlorides. Each morning the previous day's wash water was monitored for chlorides with a TDS meter. The last four mornings gave readings of 5.2, 2.3, 2.6, + 1.4 ppm, indicating a low &amp; relatively constant level of dissolved solids (as NaCl).

Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $1 \text{ mbar/in}^2$ ) for 4 hrs. in a solution of RUST EATER - a commercial product based on phosphoric acid. The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after placing in a deoxygenating chamber with silica gel (40% RH) overnight.

March 2

Treatment Summary

- |   |  |                 |
|---|--|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | <input checked="" type="checkbox"/> intensive wash, hot  | mended          |
| <input checked="" type="checkbox"/> wire brush        | <input checked="" type="checkbox"/> intensive wash, cold | bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input checked="" type="checkbox"/> oven dried           | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor            | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input checked="" type="checkbox"/> reshaped             | biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 30-33	X	
3-2-87	contact sheet 2, frame 19-22		X

**ARTIFACT SHEET  
AND TREATMENT RECORD**

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 27 Date treatment started 2-20-87  
Artifact type Date completed 2-21-87  
Date of recovery Conservator K. Singley  
Site Log Entry  
Provenience 18BA 282 - 1235

Description irregular fragment of lead - - <sup>bale</sup>  
~~seed?~~ Dimensions 1.3 cm  
Weight \_\_\_\_\_  
Condition E G  P

Photo attached \_\_\_\_\_

see contact sheets \_\_\_\_\_

<input type="checkbox"/> copper/brass/bronze	<input type="checkbox"/> bone, ivory	<input type="checkbox"/> foodstuff
<input checked="" type="checkbox"/> lead/tin/pewter	<input type="checkbox"/> cork	<input type="checkbox"/> glass
<input type="checkbox"/> iron/steel	<input type="checkbox"/> wood	<input type="checkbox"/> rubber
<input type="checkbox"/> gold	<input type="checkbox"/> cloth	<input type="checkbox"/> ceramic
<input type="checkbox"/> silver	<input type="checkbox"/> leather	<input type="checkbox"/> stone, clay
<input type="checkbox"/> mineral	<input type="checkbox"/> rope	<input type="checkbox"/> other
<input type="checkbox"/> gem	<input type="checkbox"/> paper	( )

Post excavation history: processed; bagged in plastic      Recording:  
Photographs see contact sheets  
Drawing



Location: \_\_\_\_\_

Priority for treatment:      3      2      1      0  
(high)      (medium)      (low)      (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Magnet

X-Ray \_\_\_\_\_

Probe

Other \_\_\_\_\_

Magnification

Fragment is very brittle

Dates      Treatment Record

2-20-87 The artifact was cleaned mechanically using scalpel + glass brush  
10% EDTA (disodium salt of ethylene diamine triacetate) used to remove  
carbonate corrosion. Rinsed 2 hrs. in deionized water.

2-27-87 Mechanically cleaned again. Dewatered in methanol.

2-27-87 The artifact was treated with a chemical inhibitor to prevent further  
corrosion. The artifact was placed under vacuum (~ 1bs/in<sup>2</sup>) for ~ hrs.  
in a solution of  
The artifact was removed, air dried, and given a protective coating of  
15% acryloid B-72 in toluene (acrylate methacrylate co-polymer), which helped  
consolidate the brittle lead.

Treatment Summary

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> scalpel, pick     | <input type="checkbox"/> intensive wash, hot             | <input type="checkbox"/> mended                  |
| <input type="checkbox"/> wire brush                   | <input type="checkbox"/> intensive wash, cold            | <input type="checkbox"/> bleached                |
| <input checked="" type="checkbox"/> glass brush       | <input checked="" type="checkbox"/> de-watered (solvent) | <input type="checkbox"/> filled                  |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | <input checked="" type="checkbox"/> consolidated |
| <input type="checkbox"/> electrolytic reduction       | <input type="checkbox"/> inhibitor                       | <input type="checkbox"/> special support         |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | <input type="checkbox"/> silica gel              |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | <input type="checkbox"/> biocide                 |

Dates      PhotographsBefore treatingAfter treating

2-5-87 contact sheet 1, frame 20-24

X

3-2-87 contact sheet 2, frame 10-12

X

ARTIFACT SHEET  
AND TREATMENT RECORD

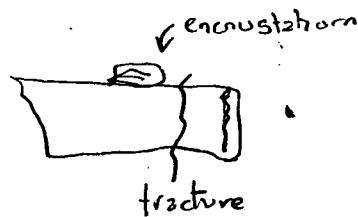
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 28 Date treatment started 2-28-87  
Artifact type  Date completed March 4, 1986  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1010

Description Knife blade fragment Dimensions 3.2 cm  
Weight   
Condition E G (P)

Photo attached        copper/brass/bronze        bone, ivory        foodstuff  
see contact sheets lead/tin/pewter        cork        glass  
 iron/steel        wood        rubber  
       gold        cloth        ceramic  
       silver        leather        stone, clay  
       mineral        rope        other  
       gem        paper        ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates      Treatment Record

2-28-87 The artifact was cleaned mechanically using scalpel + vibrottool. Block fractured during cleaning -- v. mineralized. Treated w/ cyanoacrylate

2-28-87 Boiled for 2 days in changes of deionized water to remove salts.

3-3-87

No treatment w/ chemical passivators (phosphoric acid)

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum 1 lb/in<sup>2</sup> for hrs. in a solution of

3-3-87

The artifact was removed, air dried, and given a protective coating of

3-4-87

hot microcrystalline wax.

Treatment Summary scalpel, pick intensive wash, hot mended wire brush intensive wash, cold bleached glass brush de-watered (solvent) filled air abrasive/sand blast oven dried consolidated electrolytic reduction inhibitor special support chemical cleaning coating silica gel ultrasonic reshaped biocide - vibrottoolDatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 34-36

X

3-4-87

contact sheet 2, frame

X

ARTIFACT SHEET  
AND TREATMENT RECORD

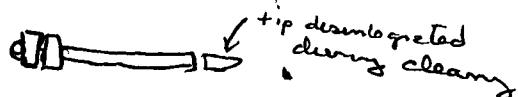
Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 29 Date treatment started Feb. 19, 1987  
Artifact type  Date completed March 2, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 1234

Description golden powder w/ nut? Dimensions 3.5cm  
Weight   
Condition E  G P

Photo attached        copper/brass/bronze        bone, ivory        foodstuff  
see contact sheets lead/tin/pewter        cork        glass  
 iron/steel        wood        rubber  
       gold        cloth        ceramic  
       silver        leather        stone, clay  
       mineral        rope        other  
       gem        paper        (      )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Dates      Treatment Record

- Feb. 19, 20      The artifact was cleaned mechanically using mini chisel, scraped, wire brush.
- Feb. 20-28      The artifact was hot washed to remove chlorides by boiling in changes of deionized water. The wash water was changed 6-8 times / day. On the last four days of the cycle, a TDS reading was taken of the wash water from the previous day. The readings were 5.2, 2.3, 2.6, + 1.4 ppm, indicating a low & relatively constant level of dissolved solids (NaCl).
- Feb. 28      The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~~10<sup>-2</sup> in<sup>2</sup>~~) for 4 hrs. in a solution of RUST EATER (a commercial product containing phosphoric acid).
- March 1      The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying overnight in a desiccating chamber at 40% Rh.

Treatment Summary

- |   |  |                 |
|---|--|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | <input checked="" type="checkbox"/> intensive wash, hot  | mended          |
| <input checked="" type="checkbox"/> wire brush        | <input checked="" type="checkbox"/> intensive wash, cold | bleached        |
| <input checked="" type="checkbox"/> glass brush       | <input type="checkbox"/> de-watered (solvent)            | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input type="checkbox"/> oven dried                      | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor            | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input type="checkbox"/> reshaped                        | biocide         |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 30-33	X	
3-2-87	contact sheet 2, frame 19-21		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 50 Date treatment started 2.20.87  
Artifact type  Date completed March 4, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1233

Description wrought iron rod w/ worked ends Dimensions 17 cm long  
Weight   
Condition E  G P

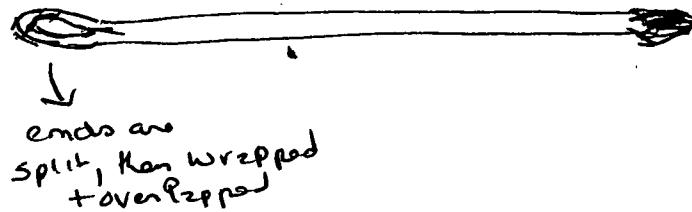
Photo attached   
see contact sheets

<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input checked="" type="checkbox"/>	iron/steel - wrought	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:  
processed; bagged in plastic

Recording:  
Photographs see contact sheets  
Drawing

Location:



Priority for treatment: 3 2 1 0  
(high) (medium) (low) (none)

Analysis/Examination

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

MagnetProbeMagnification

Cool w/ very grainy deposit -- vitrified rubble? burned? Also v. carbonized

Dates      Treatment Record

2-20-87 The artifact was cleaned mechanically using mini chisel, vibrotab, scalpel

2-21- March 1 The artifact was intensively washed on changes of deionized water (Changed 6-8 times/day) to remove chlorides. The last four readings of the wash water were 5.2, 2.3, 2.6, + 1.4 parts per million, indicating very little ionizable salts ( $\text{NaCl}$ ) being released after boiling.

No passivating chemicals used.

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $1 \text{ lbs/in}^2$ ) for hrs. in a solution of

March 1 - 4 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax.

Treatment Summaryscalpel, pick✓ intensive wash, hotmendedwire brush✓ intensive wash, coldbleachedglass brushde-watered (solvent)filledair abrasive/sand blastoven driedconsolidatedelectrolytic reductioninhibitorspecial supportchemical cleaning✓ coatingsilica gelultrasonicreshapedbiocidevibrotabDatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 34-36

X

3-4-87

contact sheet 2, frame 21-23

X

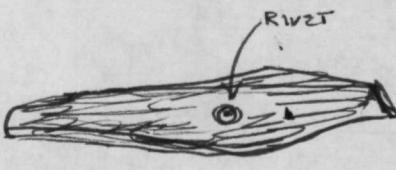
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 31 Date treatment started February 19, 1987  
Artifact type  Date completed March 2, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 | 1040

Description Knife fragment? gun part? Dimensions 5.75 cm  
Weight   
Condition E  G  P

Photo attached  copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets lead/tin/pewter  cork  glass  
 iron/steel  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper  (  )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
Drawing

Location: 

Priority for treatment: 3 2 (1) 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

DatesTreatment Record

Feb. 19 The artifact was cleaned mechanically using mini-chisel, scalpel, wire brush

Feb. 20 - Feb. 28 The artifact was boiled for 5 days in changes of deionized water (changed 6-8 times a day) in order to flush chlorides out. Each morning the wash water was tested with a TDS meter. The first four readings were 5.2, 0.3, 2.6, + 1.4 ppm -- indicating that the iron was free from Cl<sup>-</sup>. The artifact was removed.Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed ~~underwater~~ (in a bath) for 4 hrs. in a solution of "Rust-Eater" -- a commercial product, based on phosphoric acid.

March 2 The artifact was removed, air dried, and given a protective coating of

hot microcrystalline wax, after drying overnight w/ silica gel (50% RH)

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

DatesPhotographsBefore treatingAfter treating

2-5-87

contact sheet 1, frame 30-33

X

3-2-87

contact sheet 2, frame 19-21

X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 32 Date treatment started 2-20-87  
Artifact type  Date completed March 2, 1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1131

Description Sliding bolt? Dimensions 4.9 cm  
 Weight   
 Condition E G P

Photo attached  copper/brass/bronze  bone, ivory  foodstuff  
see contact sheets lead/tin/pewter  cork  glass  
 iron/steel wrought  wood  rubber  
 gold  cloth  ceramic  
 silver  leather  stone, clay  
 mineral  rope  other  
 gem  paper ( )

Post excavation history: Recording:  
processed; bagged in plastic Photographs see contact sheets  
 Drawing

Location:



Priority for treatment: 3 2 (1) 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnet

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

Probe

X-Ray \_\_\_\_\_

Magnification

Other \_\_\_\_\_

Striations indicative of wrought Fe.

Dates    Treatment Record

Feb - 20 The artifact was cleaned mechanically using min brush, wire brush, vibrotab.

Feb 20-28 The artifact was hot washed in deionized water to remove E10.

The water was changed 6-8 times /day. Each morning the wash water from the previous day was monitored with a TDS meter.

The first four readings were 5.2, 2.3, 2.6, 1.4 ppm, indicating a constant + low level of released ionizable particles (NaCl)

Feb - 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under ~~vacuum~~ (~~1psi/in<sup>2</sup>~~) for 4 hrs. in a solution of RUST EATER - a commercial product containing phosphoric acid.

March 2 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying in a desiccating chamber with silica gel (40% RH) overnight.

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

 vibrotab

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 34-36	X	
3-4-87	contact sheet 2, frame 21-23		X

ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 33 Date treatment started 2-26-1987  
Artifact type  Date completed March 2-1987  
Date of recovery  Conservator K. Singley  
Site Log Entry   
Provenience 18BA 282 - 1142

Description bent nail Dimensions 2.5 cm  
Weight \_\_\_\_\_  
Condition E  G  P

Photo attached see contact sheets

<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input checked="" type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	<input type="checkbox"/>	( )

Post excavation history:  
processed; bagged in plastic

Recording:  
Photographs see contact sheets  
Drawing \_\_\_\_\_

Location:



Priority for treatment: 3 2 (1) 0  
(high) (medium) (low) (none)

Analysis/ExaminationMagnetProbeMagnification

Spot tests \_\_\_\_\_

Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)

X-Ray \_\_\_\_\_

Other \_\_\_\_\_

Dates      Treatment Record

Feb. 20, 1981 The artifact was cleaned mechanically using mini chisel, scalpel, wire brush.

Feb. 20 - 28 The artifact was hot washed to remove chlorides. The wash water was changed b-8x/day; every morning the last wash of the previous day was monitored with a TDS meter. The final four days gave readings of 5.2, 2.3, 2.6, 1.4 ppm, indicating a constant and low level of unmet dissolved solids (NaCl) in the wash water.

Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum ( $\sim 1\text{b/in}^2$ ) for 4 hrs. in a solution of "RUST EATER": a commercial product containing phosphoric acid. The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying in a desiccating chamber overnight with silica gel (40% RH).

March 1

Treatment Summary scalpel, pick intensive wash, hot

mended

 wire brush intensive wash, cold

bleached

 glass brush de-watered (solvent)

filled

 air abrasive/sand blast oven dried

consolidated

 electrolytic reduction inhibitor

special support

 chemical cleaning coating

silica gel

 ultrasonic reshaped

biocide

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 30-33	X	
3-2-81	contact sheet 2, frame 14-21		X

**ARTIFACT SHEET  
AND TREATMENT RECORD**

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87  
Artifact number 24 Date treatment started 2-20-87  
Artifact type Date completed 8 March 2, 1987  
Date of recovery Conservator K. Singley  
Site Log Entry  
Provenience 18BA282/1134

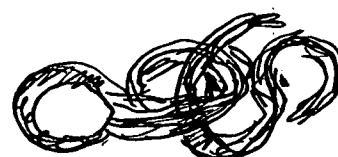
Description iron loop made of wire - possibly  
qto catch? Dimensions 6 cm  
Weight Condition E G P

Photo attached \_\_\_\_\_  
see contact sheets \_\_\_\_\_

<input type="checkbox"/>	copper/brass/bronze	<input type="checkbox"/>	bone, ivory	<input type="checkbox"/>	foodstuff
<input type="checkbox"/>	lead/tin/pewter	<input type="checkbox"/>	cork	<input type="checkbox"/>	glass
<input checked="" type="checkbox"/>	iron/steel	<input type="checkbox"/>	wood	<input type="checkbox"/>	rubber
<input type="checkbox"/>	gold	<input type="checkbox"/>	cloth	<input type="checkbox"/>	ceramic
<input type="checkbox"/>	silver	<input type="checkbox"/>	leather	<input type="checkbox"/>	stone, clay
<input type="checkbox"/>	mineral	<input type="checkbox"/>	rope	<input type="checkbox"/>	other
<input type="checkbox"/>	gem	<input type="checkbox"/>	paper	( )	

Post excavation history: processed; bagged in plastic      Recording: Photographs see contact sheets Drawing

Location:



Analysis/Examination

Magnet  
Probe  
Magnification

Spot tests \_\_\_\_\_  
Chloride test \_\_\_\_\_ (+) \_\_\_\_\_ (-)  
X-Ray \_\_\_\_\_  
Other \_\_\_\_\_

Dates    Treatment Record

- 2-20-87 The artifact was cleaned mechanically using minichisel, scalpel, vibratool.  
 2-20 thru The artifact was intensively washed in changes of deionized water  
 2-28 1987 to remove chlorides. The wash water was changed 6-8 times / day.  
 Each morning the previous day's last wash was monitored for dissolved solids (NaCl) : the first 4 days gave readings of 5.2, 2.3, 2.6, + 1.4 ppm, indicating a low + constant level of ionizable particles in the water.  
 2-28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed ~~underwater for 1 hr/1/2~~ for 4 hrs. in a solution of RUST EATER, a commercial product containing phosphoric acid.  
 March 2 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying overnight in a desiccator with silica gel (40% RH)

Treatment Summary

- |   |  |                 |
|---|--|-----------------|
| <input checked="" type="checkbox"/> scalpel, pick     | <input checked="" type="checkbox"/> intensive wash, hot  | mended          |
| <input checked="" type="checkbox"/> wire brush        | <input checked="" type="checkbox"/> intensive wash, cold | bleached        |
| <input type="checkbox"/> glass brush                  | <input checked="" type="checkbox"/> de-watered (solvent) | filled          |
| <input type="checkbox"/> air abrasive/sand blast      | <input checked="" type="checkbox"/> oven dried           | consolidated    |
| <input type="checkbox"/> electrolytic reduction       | <input checked="" type="checkbox"/> inhibitor            | special support |
| <input checked="" type="checkbox"/> chemical cleaning | <input checked="" type="checkbox"/> coating              | silica gel      |
| <input type="checkbox"/> ultrasonic                   | <input checked="" type="checkbox"/> reshaped             | biocide         |
| <input checked="" type="checkbox"/> vibratool         |  |                 |

<u>Dates</u>	<u>Photographs</u>	<u>Before treating</u>	<u>After treating</u>
2-5-87	contact sheet 1, frame 34-36	X	
3-4-87	contact sheet 2, frame 21-23		X